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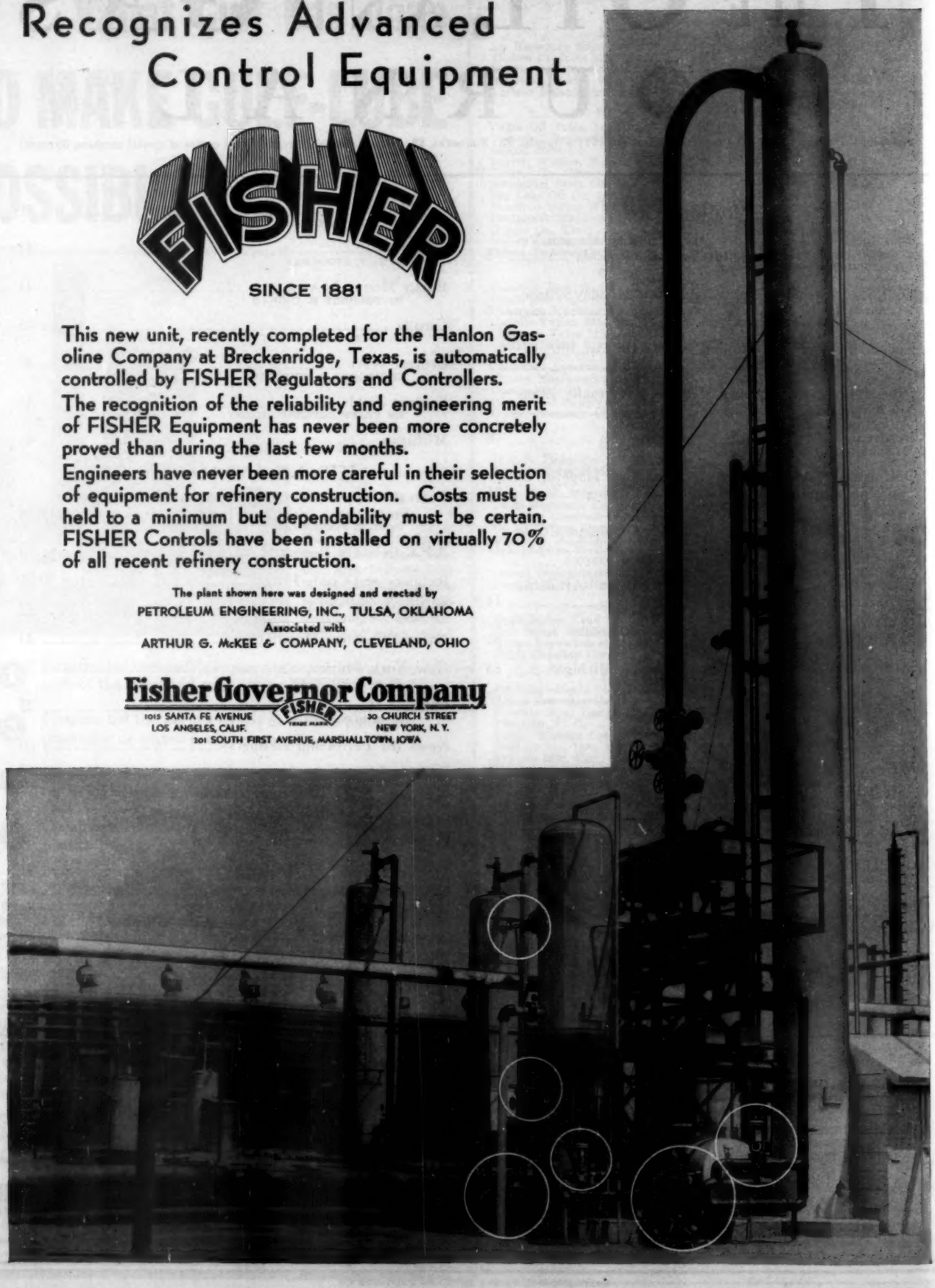

Ban on Hot Oil Shipments Strengthens Crude and Refined Oil Price Structures; Outlook Good

By ANDREW M. ROWLEY

CONDITIONS in the petroleum industry have improved greatly during the past week. Production and shipments of hot oil in the East Texas area have been reduced to a point where they were negligible the first part of this week. The situation is reflected clearly in production figures for the field during last week. During the first four days of the week production averaged 779,000 barrels daily and during the last three days of the week the average output had dropped to 605,000 barrels daily. Consequently, if production is held at that level during this week, a decline in output averaging 100,000 barrels daily will be recorded in the weekly output.

Of the greatest importance to the industry as a whole is the elimination of shipments of hot oil. Where tank car shipments of crude had been running around 600 cars a day on Sunday of this week only 9 cars left the field. Representatives of the Federal administration are on the ground making investigations not only into the crude oil production situation but in regard to gasoline manufacture and shipments also. These men evidently mean business and operators in the field regard them in an entirely different light than they have been regarding state officials and representatives.

Better prices for crude oil and gasoline are regarded as certainties if the ban on hot oil shipments from East Texas continues. The refined oil market already is reflecting this situation and the price structure has strengthened quite materially. Further adjustments in the posted schedules for crude oil are expected quickly.

Consumption is being maintained at a better rate than many had anticipated and all branches of the industry realize better prices for both crude oil and gasoline are absolutely necessary if the oil business is to get out of the red and begin to show a profit. Unless operations can be conducted at a profit, efforts of the Federal administration to increase employment and wages will have failed so far as the petroleum industry is concerned.

The outlook is far brighter than it has been in a long time. Drilling operations are increasing in many areas; there is a good demand for crude oil and gasoline; and with hot oil shipments eliminated in East Texas, the turn certainly has been made.

Crude Oil Production in the United States

Estimated daily average production for the week ending July 15, and a comparison with the previous week and a year ago, follows:

	July 15	July 8	July 16, 1932
Oklahoma—			
Oklahoma City	264,320	253,980	83,210
Seminole-St. Louis	116,410	112,253	112,735
Remainder of State	207,250	207,372	210,390
Total Oklahoma	587,980	573,605	406,335
East Texas—			
Lathrop	292,520	304,010	127,596
Kilgore	214,985	223,425	103,305
Joiner	197,365	205,115	106,487
Total East Texas	704,870	732,550	337,388
West Texas	159,689	162,204	178,312
North Central Texas	72,104	71,045	76,156
Texas Panhandle	45,792	49,053	52,895
East Central Texas	58,210	58,438	57,364
Gulf Coast—Texas	202,123	187,112	113,805
Southwest Texas	55,161	52,396	61,349
Total State of Texas	1,297,949	1,312,798	877,269
Kansas	132,570	131,600	97,120
North Louisiana	26,082	24,230	30,330
Gulf Coast—Louisiana	43,455	42,595	32,632
Arkansas	30,085	29,822	34,115
Eastern Fields	112,000	110,000	118,000
Rocky Mountain area	73,300	73,660	79,930
California—			
Santa Fe Springs	53,750	54,250	58,000
Long Beach	73,500	74,750	70,000
Playa Del Rey	11,250	11,500	14,500
Elwood	14,250	13,750	14,250
Kettleman Hills	63,000	67,500	62,250
Remainder of State	272,250	263,000	252,000
Total California	488,000	484,750	471,000
Total United States	2,791,421	2,783,060	2,146,731

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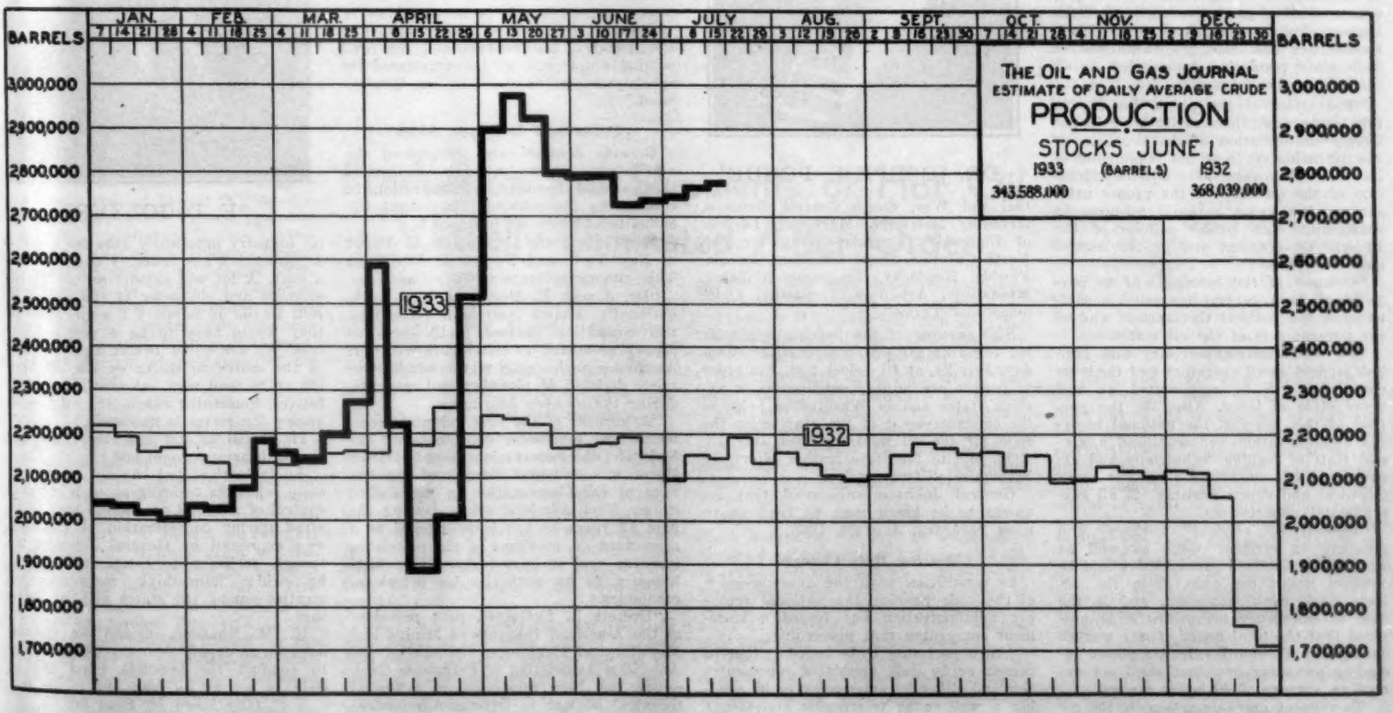


Oil Code Hearing Set at Washington Monday; Statement by the Recovery Administration

By CHARLES E. KERN
Washington Bureau, The Oil and Gas Journal

WASHINGTON, D. C., July 17.—The oil industry has submitted its code of fair competition to the national recovery administration. This code, adopted by the Chicago conference, was filed by the American Petroleum Institute. Gen. H. S. Johnson announced that public hearings will commence Monday, July 24, in the Caucus Room of the Senate Office Building.

"It is understood," said General Johnson, in making this announcement, "that other petroleum codes are to be submitted by other groups in the industry. Special notices to all such groups will be given with a request that all submit their codes to be heard at the same time as the present code."

The only changes made in the codes drafted at Chicago were the addition of provisions governing work weeks and wages of employes in the industry. Minimum wage scales ranging from 40 to 47 cents an hour for a 40-hour work week are proposed by the revised code submitted.

N.R.A. Statement

The national recovery administration later issued a statement as follows:

"The N.R.A. in scheduling public hearings on the code to begin Monday, July 24, emphasized that it assumes no responsibility for the code submitted and has given no implied or direct, advance approval to any of its provisions.

"Interests involved are so complicated and far-reaching, including the problems of state control of oil production, it was announced, that special notice of the public hearings is being given to the governors of all oil-producing states with the request they attend or send personal representatives and also representatives of each state regulating commission to sit throughout the hearings.

"The effect of the public hearing in this instance will necessarily bring in not merely consideration of the problems of the oil industry from the standpoint of its internal government, but consideration of the question of the proper utilization of a great national resource in conformity with public policies of the Federal Government and of the several states affected.

"Conduct of the hearing will be participated in by every interested department of the Federal Government and of the governments of the oil states.

"On the industrial advisory side, both independent small operators and the large companies will be represented as will every class of labor. Also, for the purpose of this hearing, the national recovery administration has mobilized a special staff of leading technicians and experts and has organized to utilize every technical and expert assistant in all governmental departments.

"Executives, clerical workers and pumpers on stripper wells as well as workers on 'isolated properties' would be exempt, under the code, from the 40-hour work week maximum, and in the case of emergency necessities it is provided that the total hours of any worker during any six-month calendar period including necessary overtime, shall not exceed an average of 40 hours a week.

"In view of previous action by the recovery administration it is certain that any proposed exemption of clerical workers and others will come in for searching inquiry.

Wage Minimums

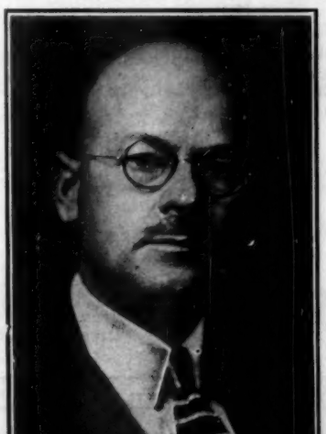
"In proposing tentative wage minimums, the code establishes geographic divisions and wage rates for the 40-hour week, as follows:

"Forty-seven cents an hour, or $18.80 per week in the Middle Atlantic division, including New York, New Jersey and Pennsylvania; and in the Pacific division including Washington, Oregon and California;

"Forty-five cents an hour, or $18 per week in the Mountain division including Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Nevada and Utah;

"Forty-two cents an hour, or $16.80 a week in the West North Central division including Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska and Kansas;

"Forty cents an hour, or $16 a week in the South Atlantic, East South Central and West South Central divisions, including Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma and Texas."



DR. JOSEPH E. POGUE

The opening of the hearing originally set for July 20 was postponed to Monday, July 24, at 10 o'clock a.m., "in order to permit preliminary conferences in various states and in Washington prior to the commencement of the hearing on the code for the oil industry filed July 13, 1933, and to facilitate further efforts to harmonize differences."

General Johnson announced that requests to be heard may be filed up to noon Saturday, July 22, 1933.

Hearing Date Changed

In connection with the announcement of the code hearing the national recovery administration has issued a statement concerning that proceeding.

"An opportunity to be heard (either in person or by duly appointed representative and either by appearance or by sending a written or telegraphic statement) will be given to persons or groups who can show a substantial interest as operators, producers, refiners, distributors, workers, employers, consumers or otherwise, in the effect of any provision of the proposed code," the statement says.

"Those wishing to be heard must comply with the following simple requirements:

"1. A written or telegraphic request for an opportunity to be heard must be filed before noon Saturday, July 22, with the administrator, Room 4834, Department of Commerce Building, Washington, D. C.

"2. Such a request shall contain a statement setting forth without argument, a proposal: (a) for the elimination of a specific provision of the code; or (b) a modification of a specific provision, in language proposed by the witness; or (c) a provision to be added to the code, in language proposed by the witness. The request shall also contain a statement of the name of any person seeking to testify in the hearing and a designation of the persons or groups whom he represents.

"3. All persons appearing at the public hearing are regarded as witnesses and shall present orally only facts and not argument. Written briefs of arguments may be filed but oral presentations will be confined to factual statements only and no legal arguments will be heard.

"4. Persons not appearing may file before the close of the hearing written statements containing proposals for eliminations, modifications, or additions to the code supported by pertinent information. These written statements should be condensed as much as possible.

"Public hearings are solely for the purpose of obtaining in the most direct manner all the facts useful to the administrator, and no arguments will be heard or considered at this time. Representation of interested parties by attorneys or specialists is permissible, but is not to be regarded as necessary since the industry, the workers and the consuming public will all be represented by special advisers employed by the Government."

Pogue and DeGolyer Aides

General Johnson also announced the appointment of two new aides to counsel the national recovery administration in considering the code of fair competition submitted by the oil industry.

These aides are Dr. Joseph E. Pogue of New York, and Everett L. DeGolyer. This announcement stated:

"Dr. Joseph E. Pogue, of New York, nationally known petroleum economist and consulting engineer, will serve as deputy economist to collaborate with Dr. Alexander Sachs, chief of the administration's division of planning and research, during the oil code hearings.

"A member of the first volunteer committee on petroleum economics of the Federal Oil Conservation Board, Doctor Pogue was assistant director of the Bureau of Oil Conservation in the United States Fuel Administration. During the past 12 years he has been engaged as a consultant on problems of the petroleum industry and is known throughout that industry as an authority on petroleum economics.

"Everett L. DeGolyer, past president of the American Institute of Mining and Metallurgical Engineers, and also of the American Association of Petroleum Geologists, has been appointed as a special technical adviser to Deputy Administrator K. M. Simpson, who will preside in the public hearings on the petroleum code.

"Mr. DeGolyer, known in the industry as an outstanding geologist and consultant for a number of the large producing companies, until recently has been president and operating manager of the Amerada corporation."

K. M. Simpson to Preside

General Johnson stated that Deputy Administrator K. M. Simpson will preside at the public hearings on the petroleum code. He added that Mr. Simpson would preside over both coal and oil hearings, saying they were both closely tied together.

Asked if he would enforce the "hot oil" order, he said:

"At the time it remains in the Interior Department. The oil code will contain a provision as the cotton textile code did, for industrial self-government. They will set up a committee under the administrator. We will add three members to that committee. There it depends on the industry as to the extent that we will intervene. We will intervene where necessary to protect the public interest. The oil industry practically asks for a czar—I don't think any industry ought to have a czar. A lot will depend on the aggressiveness and character of the men I select. In the oil industry I would say that they would have to be a pretty husky trio. We are going to ask the governors of the states to sit in on the oil hearing or to send very substantial representatives. Something resembling oil treaties among the states is necessary."

E. DeGOLYER

He stated he did not know how long the oil hearings would last.

An indication that the old question of state compacts to bring about a complete control of national production may be revived during consideration of the code, was expressed by General Johnson. Although declining to comment in detail, he said: "Something resembling oil treaties among the states may be necessary."

K. M. Simpson, named by General Johnson as deputy recovery administrator to conduct the hearings upon the oil code, is not an oil man but in his pro-

(Continued on Page 30)

Federal Regulations Banning Transportation of Hot Oil Put Into Effect Promptly in East Texas

WASHINGTON, D. C., July 17.—The Government took a decisive step toward curbing overproduction of oil through an order by President Roosevelt prohibiting the shipment in interstate or foreign commerce of petroleum produced or withdrawn from storage in violation of state conservation laws.

The order, issued July 12 under the authority given Mr. Roosevelt in the industrial recovery act, follows:

"By virtue of the authority vested in me by the Act of Congress entitled 'An Act to encourage national industrial recovery, to foster fair competition, and to provide for the construction of certain useful public works, and for other purposes,' approved June 16, 1933 (Public No. 67, 73rd Congress), the transportation in interstate and foreign commerce of petroleum and the products thereof produced or withdrawn from storage in excess of the amount permitted to be produced or withdrawn from storage by any state law or valid regulation or order prescribed thereunder, by any board, commission, officer, or other duly authorized agency of a state, is hereby prohibited."

Secretary of the Interior Ickes was designated by President Roosevelt to enforce his executive order. Immediately the secretary assigned the task of drafting the regulations and setting up an enforcement body to Louis R. Glavis, departmental director of investigations, and Charles Fahy, assistant solicitor.

The penalties for violation of the executive order are $1,000 fine or imprisonment for six months, or both.

Text of Regulations

The text of new regulations issued by Secretary Ickes July 16 to control shipments follows:

I

"Under the terms of the aforesaid act and orders petroleum or the products thereof is in interstate and foreign commerce (1) when petroleum or any of the products thereof is in the course of shipment or transportation by rail, pipe line, water, truck, or any other means of conveyance from any state, territory or district of the United States to any other state, territory or district of the United States, or to a foreign country, or (2) when petroleum or any of the products thereof is in any quantity or in any manner commingled with petroleum or the products thereof some part of which is in the course of such shipment or transportation, regardless of how such commingling occurs during the various processes of shipment or refining. Excess production of petroleum or the products thereof under said act and orders includes petroleum produced in excess of proration quotas, oil-gas ratio requirements or any other purported conservation measure which tends to limit, directly or indirectly, the production of petroleum or the products thereof.

II

"Any producer, operator, lessee, royalty owner, or other person, natural or artificial, having an interest in any petroleum producing property, or possessing any right, title or interest in petroleum or the products thereof, who shall ship, transport, or deliver to another for shipment or transportation or shall acquiesce in the procuring or conspire with any other persons, natural or artificial, to procure the transportation in interstate or foreign commerce of any petroleum or the products thereof; or any person, natural or artificial, who shall receive for shipment or transportation in interstate and foreign commerce any petroleum or the products thereof, with the knowledge that such petroleum was produced or withdrawn from storage in violation of any law, or valid regulation or order prescribed thereunder by any board, commission, officer, or other duly authorized agency of a state, shall be deemed to have violated the provisions of Section 9 (C) of the national industrial recovery act (Public No. 67, Seventy-third Congress) and the orders and regulations thereunder, and shall be subject to the penalties prescribed in the act. And each transaction shall be deemed a separate offense.

III

"Because of the interrelation of interstate and intrastate commerce in petroleum and the products thereof and the direct effect upon interstate and foreign commerce of petroleum and products thereof moving in intrastate commerce, it is essential and hereby required for the proper enforcement of the provisions of Section 9 (C) of the national industrial recovery act (Public No. 67, Seventy-third Congress) and the orders and regulations issued thereunder, that there shall be furnished the division of investigations of the Department of the Interior such information as respects production, purchases and shipments as is hereinafter required, regardless of whether such production, purchases and shipments are in interstate and foreign commerce or in intrastate commerce.

IV

"Every producer of petroleum shall file a statement under oath, sworn to before any duly authorized state or Federal officer, not later than the fifth day of each and every calendar month, beginning with the period ending August 5, 1933, with the division of investigations of the Department of the Interior, unless otherwise ordered to report at more frequent intervals by the division, which statement shall contain the following:

"1. Residence and post office address of producer.

"2. Location of his producing properties and wells, the allowable production for each property and well as prescribed by the proper state agency for both the property and wells.

"3. The daily production, in barrels, produced from each property and well.

"4. A report on all sales, showing the names of purchasers and transporting agencies, their places of business, and the quantity involved in each sale or shipment.

"5. A declaration that no part of the petroleum or the products thereof produced or withdrawn from storage in excess of the amount permitted to be produced or withdrawn from storage by any state law or valid regulation or order prescribed thereunder by any board, commission, officer, or other duly authorized agency of the State in which the petroleum was produced.

V

"Every purchaser, shipper and refiner of petroleum or the products thereof, shall file a statement under oath, sworn to before any duly authorized state or Federal officer, not later than the fifth day of each and every calendar month beginning with the period ending August 5, 1933, with the division of investigations of the Department of the Interior, unless otherwise ordered to report at more frequent intervals by the division, which statement shall contain the following:

"1. Residence and post office address of purchaser, shipper or refiner.

"2. Place and time of receipt and the amount received of petroleum and the products thereof.

"3. The disposition of petroleum and the products thereof, including the place and time of sales, the amount sold, the destination and consignee.

"4. A declaration that upon information and belief none of the petroleum and the products thereof handled has been produced or withdrawn from storage in excess of the amount permitted to be produced or withdrawn from storage by any state law or valid regulation by any board, commission, officer or other duly authorized agency of the State in which the petroleum was produced.

VI

"No transporting agency, whether by rail, pipe line, water, truck, or any other means of conveyance, shall receive for transportation any petroleum or the products thereof unless the shipper shall furnish and the transporting agency shall receive in good faith an affidavit sworn to before any duly authorized state or Federal officer, which shall contain the following:

"1. Residence and post office address of both the producer and the shipper.

"2. A declaration that none of the petroleum shipped has been produced or withdrawn from storage in excess of the amount permitted to be produced or withdrawn from storage by any state law or valid regulation or order prescribed thereunder by any board, commission, officer, or any other duly authorized agency of the state in which the petroleum was produced.

"3. A recital of supporting facts, including the number of barrels included within the shipment, a designation by wells or otherwise of the wells producing the petroleum shipped, the time during which such petroleum was produced and the rate of daily production during this period, together with the amount of production allowed by state law or regulations thereunder during the period of production.

"4. Such other information as may be required from time to time by the division of investigations of the Department of the Interior, for the proper enforcement of these orders and regulations.

"Provided, however, that carriers may receive from other carriers for such transportation and may transport any petroleum or the products thereof without requiring such affidavit and shall not be subject to any liability or penalty for or on account of so receiving or transporting the same.

"The affidavits required by this regulation shall be filed and kept subject to inspection by the division of investigations of the Department of the Interior.

VII

"All persons, natural or artificial, embraced within the terms of Section 9 (C) of the national industrial recovery act (Public No. 67, Seventy-third Congress) and the executive orders and regulations issued thereunder, shall keep and maintain available for inspection by the division of investigations of the Department of the Interior adequate books and records of all transactions involving the production and transportation of petroleum and the products thereof.

VIII

"All reports required by these regulations shall be filed with the division of investigations of the Department of the Interior in Washington, D. C., or with such regional agencies as may be from time to time designated by the division of investigations.

IX

"Each and every false declaration in any statement under oath required by these orders and regulations, or each and every failure to file reports or to keep and maintain adequate records, as required by these orders and regulations and any participation by any officer or agent of a corporation in any acts of commission or omission in performing the duties prescribed by these orders and regulations shall constitute a violation under the terms of Section 9 (C) of the national industrial recovery act (Public No. 67, Seventy-third Congress).

X

"These regulations may be suspended in whole or in part by the Secretary of

(Continued on Page 30)

Production and Shipments of Hot Oil Virtually Eliminated After Order

FORT WORTH, Tex., July 17.—Hot oil production and shipments in East Texas have been virtually eliminated since Thursday after President Roosevelt's hot oil order. Tank car movements have dropped from around 600 tank cars daily to 9 to 12 cars. All railroads, except one, have made voluntary agreement not to accept any oil without complete proof of legal production.

Local refiners have curtailed acceptances and runs to stills due to inability to ship refined products from hot oil in interstate movement. Outfits here which have dealt mainly in hot oil shipping state their business has been killed entirely.

Daily average production for the first four days of the week totaled 779,440 bbls. while the daily average for the remaining three days under the new regulations are estimated at only 605,500 bbls. daily. The average for the week, including three days under the new law, figures 704,871 bbls.

Tank car shipments fell from over 98,700 bbls. on July 14 to 36,000 bbls. July 15, and only nine cars on July 16.

One interstate pipe line which had been running daily overage of around 33,000 bbls. previous to the shutdown, is now separating receiving and pumping tanks and allowing the commission to gauge same instead of merely computing crude by over and short method as formerly done.

The railroad commission proposes to check refineries for out of state shipments of refined products from the field. Operators are now seeking connection for major purchasers showing the change in status of the field, producers shutting in wells to allowables and asking commission men what their allowables are.

The railroads are tightening up on carrying oil, requesting proper tenders be made out as ordered by the commission.

A. I. M. E. Stabilization Forum, Article No. 8; Reservoir Energy: Source, Ownership, Use

By JOSEPH B. UMPLEBY*

The oil industry is at the parting of the ways in relating fundamental engineering concepts to legal interpretations and field practices. The old concept, based on an erroneous analogy to wild game, that oil and gas are migratory substances and belong to him who reduces them to posession regardless of their point of origin in the reservoir, has come to be quite generally recognized as the basis of many of the serious ills and extravagances of the industry. The chain of consequences resulting from this erroneous conception has been traced elsewhere and need not be recounted here. The important problem at this stage in the development of the industry, when laws are being revised by legislative action and modified by court decisions; when added powers are being exercised by voluntary committees and official regulatory bodies; and when the need for control of output has forced itself to the forefront, is to see to it that new law and action are based on sound engineering concepts.

Reservoir Energy Common Property

Since the study of gas instituted by the Mariand committee of the American Petroleum Institute in 1927, a great mass of information has accumulated concerning the function of gas in the development and production of oil. This wealth of data leads to the conclusion that every oil pool contains three resources: Oil, gas and reservoir energy. I take it that the central problem of this symposium is the ownership of these three resources and that "source" and "utilization" are involved because of their bearing on ownership through the demands of equity and conservation. In order to facilitate the discussion, permit me to state categorically, that: The oil and gas in a particular tract should belong to the owners of the mineral rights in that particular tract, but the reservoir energy should be common property of all owners of mineral rights in the pool.

I take it that apportionment of oil and gas among owners according to the relative amounts that exist in place in their respectilve tracts is sound from the standopint of equity and does not require further detailed analysis. That reservoir energy should be considered in a different category is not so obvious and requires careful study.

Reservoir energy is set apart by the nature of its origin and existence. In origin, it results from forces of compression acting on the entire content of the reservoir. These forces may have manifestations such as hydrostatic head, superimposed beds, or diastrophism, but in the last analysis gravity, operating over a much wider area than the limits of the pool, is the cause. Reservoir energy depends on the continuity of the confining beds, so that puncturing the container at any single point affects the whole. It is more a conditioning factor than a recoverable resource. Its chief value results from work performed within the reservoir rather than work done at the surface. Compressor plants can duplicate such work as reservoir energy effects at the surface, but it is impossible to duplicate its work in the sand, because oil, in the absence of agitation, absorbs gas so slowly as to be negligible.

Best Practice

The demands of efficiency and conservation also place reservoir energy in a separate and distinct category. Best practice calls for the greatest production of oil at the least possible expenditure of reservoir energy. It is generally recognized that the energy system is exhausted long before the reservoir is drained of oil. Probably, on the general average, recovery does not exceed one-quarter of the oil in the sand. The greatest and most practical conservation applicable to oil pools is a proper conservation and utilization of reservoir energy to the end that ultimate recovery may be increased.

*Petroleum engineer, Norman, Okla.

It follows from these considerations, that reservoir energy is a status of the reservoir to be maintained for the common benefit rather than a product to be apportioned among individuals. It cannot be divided and maintain its usefulness. If reservoir energy is thus utilized, it is almost a corrolary that unit costs will be lowered, because additional recovery, a longer flowing life, and less fluctuations in production far outweigh deferred income.

If we accept reservoir energy as a status to be maintained for the common good rather than a product to be divided, on the one hand, and apportionment of oil and gas among owners according to amounts in place, on the other, it becomes necessary to consider in detail the bearing of one further engineering fact.

Control of Gas

Regardless of the nature and origin of the reservoir energy, the fact remains that in most pools it is stored in the gas—both in gas dissolved in oil and free gas. The free gas is important because of its tendency to expand. The dissolved gas is important for this reason, and for the added reason that its presence makes the oil more fluid. If the free gas is allowed to escape, the dissolved gas becomes free gas progressively as the pressure drops. Hence, in the ideal operation the gas of the reservoir should not be marketed until all the oil capable of economic recovery has been removed. If then, we consider oil and gas in the same category, what basis can we have for allowing the early production of oil and requiring the deferred production of gas? It would seem that this step must be based on principles of conservation, but equity clearly requires that the owner of gas be compensated for deferred income.

It is hoped that discussion will take the twofold direction of analyzing first, the soundness of the proposition from a technical viewpoint, and second, the consequence of its adoption from legal and operating angles. The first is peculiarly the problem of the scientist and engineer: The second belongs more to the lawyer and the executive. It is particularly fortunate that both groups are represented at this meeting and both are urged to join in the discussion.

Subdivisions of Stabilization

In arranging the forum program, Stabilization was separated into four major subdivisions:

1. **Balancing supply and demand.**
2. **Developing greatest recovery at lowest cost.**
3. **Establishing an equitable standard of ownership rights.**
4. **Preserving ownership control.**

Each of these, in turn, must be regarded from four viewpoints: mechanical, economic, political, and legal, as outlined by Dean Pound.

Reservoir energy is one of the most important physical facts to be considered in this stabilization study. It was made the subject of a symposium conducted under the direction of Dr. Umpleby at the A.I.M.E. meeting at Ponca City in September, 1932 and is being published in Transactions A.I. M. E., 1933, Petroleum Development and Technology. The material there developed is so pertinent to a stabilization study that we reproduce it here as a part of the stabilization forum discussion.

(Signed)
EARL OLIVER.

DISCUSSION
(J. B. Umpleby, Presiding)

H. D. Wilde[1], Houston, Tex.—The most perplexing question, it seems to me, is "who owns the reservoir energy?" I believe all the engineers agree that in the last analysis the source of the energy is the force of gravity acting over an area much larger than the reservoir itself. This is particularly true if water under pressure can move into the reservoir to replace the oil removed. Because of the difficulty of isolating the energy, it is reasonable to assume that the energy is the common property of all owners of the pool. The manner in which it is to be distributed among the owners is a question for the lawyers and executives to decide.

Frequently, the energy possessed by the gas in solution is overlooked and all emphasis placed on the energy in the free gas. It is interesting to note that a given quantity of gas under a given pressure will have practically the same amount of energy or ability to do work whether free or dissolved. The difference is that ordinarily the gas under a given pressure will occupy less reservoir space when as free gas instead of dissolved. For example, 240 cubic feet of gas dissolves in a barrel of oil at 1,500 pounds to form 6.16 cubic feet of saturated oil. This amount of gas will occupy 6.16 cubic feet of reservoir space dissolved and 2.35 cubic feet of space as free gas. The amount of energy available in either case is practically the same, although, of course, the efficiency with which it is used depends upon the manner in which it is used. In dealing with the use of the energy, emphasis should be laid on the hydrodynamics rather than the thermodynamics of the operation.

E. Oliver, Ponca City, Okla.—How on the average does the quantity of gas in the free state in a unit volume of reservoir space compare with the quantity of dissolved gas in the same volume of space under the same pressure conditions?

H. D. Wilde.—That depends upon the solubility of the gas in the oil. In the example just quoted, the solubility used was that of Sugarland gas and crude. This is a rather low solubility. If 400 cubic feet of gas dissolves per barrel of oil, 3.9 cubic feet of free gas space contains as much gas and as much energy as 6.6 cubic feet of space containing dissolved gas. Here the ratio is 1.7 to 1 as compared to 2.6 to 1 in the case of Sugarland.

J. O. Lewis[2], Tulsa.—As I understand it, the question for discussion is the legal ownership of the energy in the pool. Of course that energy may not be gas, it might be water energy as in East Texas, but I understand we are today discussing only the energy contained in the gas dissolved in or overlying the oil.

Energy has a value just as does the oil. You have many examples of value for energy, as, for instance, electricity. When you consider the ownership of energy in a pool, you must consider that the energy is stored in the gas from which it is inseparable underground. Should the energy be considered common property? I think that comes to the same legal question as the ownership of the oil itself except that practically there would be even greater difficulty in keeping the energy to its original place. A man may own a property containing only free gas at the center of an oil pool but that gas energy could be made of great value to the rest of the pool. Considering the property by itself, the gas underlying it is worth to the owner only what he can sell it for when brought to the surface and the gas energy underground is worth nothing to him, because he cannot utilize it to recover oil. But the gas energy could be used to increase the oil recovery from other properties in the pool; therefore, it has a potential value to the other property owners and the owner is entitled to some consideration if

[1]Humble Oil & Refining Co.
[2]Dunn & Lewis.

his gas is so used. However, I have not yet seen any proposal for a satisfactory way of determining what its value should be.

J. B. Umpleby.—Mr. Lewis brought out rather clearly the value of the energy as it is used in the reservoir—it does work underground. Using the energy, however, does not destroy the marketable commodity, which is the gas.

E. A. Stephenson[3], Rolla, Mo.—There is one phase which I think we overlook at times: Certainly the energy of this gas does have a value at the surface, because it can force itself through a pipe line to a point of lower pressure. The man who owns the gas and knows that its energy can be used to transport itself a great distance puts a value on it.

J. B. Umpleby.—But the work at the surface can be done by a compressor plant, whereas the work in the reservoir cannot be done by any other agent.

B. E. Lindsly[4], Bartlesville, Okla. (written discussion).—Many of the questions brought up by Doctor Umpleby cannot be answered by scientific deductions; apparently they must be answered by a crystallization of personal and public opinion.

With respect to the ownership of the energy in an oil pool, there is little question in my mind that the energy of the free and also the dissolved gas that underlies a tract is actually owned by the owner of the tract in the same way that he owns the space above and the minerals that exist beneath the surface.

If it is conceded that the owner of a tract also owns the energy existing in the formation beneath the surface, then the next question is: How may this energy be utilized? To this question there might be a variety of answers, but for brevity we can assume that these answers will all simmer down to the two following: (1) The owner can use his energy to his own personal advantage, regardless of the effect on other properties in the field or upon the general conservation of natural resources. (2) The owner should be subject to regulation so that the utilization of his energy will not unduly depreciate the value of adjoining tracts or result in waste of irreplaceable natural resources.

Ample Precedent

The writer holds in general to the opinion expressed by the second answer, and it would seem that there is ample precedent in support of this opinion. The indiscriminate withdrawals of oil, gas, and energy from individual tracts not only results in the migration of oil from one tract to another but it may and often does result in underground wastage; meaning that large quantities of oil may be trapped and lost underground.

To consider the reservoir energy as a common attribute of oil pools simplifies the technical problems connected with the appraisal of tracts for unit operation but such doctrine might not entirely satisfy or be equitable to the tract owner who has an immense amount of energy but little oil and only a meager market for his gas. The only item of real value to such an owner is the energy underlying his tract. Naturally, he would want a fair appraisal of his energy, an appraisal that would indicate the proportion of energy that underlies his tract, with respect to the total energy in the entire pool. Such an appraisal of energy, both in the form of free gas and dissolved gas is not an insurmountable problem and I am of the opinion that a fair appraisal of a tract for unit operation should not only recognize the value of the underlying oil and gas, but also the value of the energy content.

F. O. Prior[5], Tulsa.—A gradual definite trend toward the recognition of the importance of reservoir energy in the production of oil has been evident in the last few years. Doctor Umpleby's paper, "Changing Concepts in the Petroleum Industry,"[6] ably chronicles this transition. There can be no disagreement by students of this new conception with the thought advanced in this paper.

The paramount problem of the allocation of the ownership and the utilization of this energy cannot, in the light of present knowledge, be adequately solved. Continued study of this energy in its two major phases, water and gas, is necessary. Field and laboratory work, exploring further the laws of solution, their variation under formational pressures and temperatures; the effect of porosity, grain size and shape on the flow of oil through sands, quantitative effect of surface tension on oil retention in sand of various characteristics, the effect of pressure, temperature, agitation and rate of flow on gas in solution and its consequent effect on viscosity and fluid flow, all must be done in detail before more than a rough approximation of recoverable reserves under the new conception can be made. Likewise, more accurate and more concise valuation methods, based upon core analyses, laboratory examination of reservoir samples, and most important, actual experience from the fields now being so operated, must be had before equitable allocation of participation rights may be made on reservoir energy ownership. No fixed set of rules, or specific laws are capable of universal application to oil-producing fields. Each field is a separate study in the allocation of energy rights and the most efficient utilization of such energy. Laws may be made, however, setting up the working body and the method of procedure for valuation and determining these factors.

Definite Advances

Certain definite advances have been made in evolving laws, and regulation for prohibiting physical waste. It is becoming generally accepted that the new method, the new conception of oil field development, utilizing reservoir energy to the maximum is necessary for the prevention of physical waste. It follows then, that given such laws and the police power for their enforcement, it will be compulsory upon the owners of a field to co-operatively and collectively reach an agreement covering the ownership and use of reservoir energy. It seems, then, that until technicians have, through scientific means, determined more accurate methods of valuation, and the most efficient manner of utilization, recourse must be had to the laws governing physical waste.

E. O. Bennett[7], Ponca City, Okla.—Gas in solution or free in the formation should be considered the same when used for its energy. If the gas is removed the potential energy for raising oil is gone. Oil cannot be robbed of its gas and be made to flow, except in water-drive pools.

In order to get the greatest ultimate recovery from a gas energy pool, the oil and the gas energy should be divided in the pool. How it is to be divided I do not think can be determined by the engineers at this time. To realize the greatest ultimate recovery gas and energy should be considered the same as in the purchase of energy in electricity for power. You cannot buy the commodity kilowatt but the energy in a kilowatt.

Assume 500 cubic feet of gas will produce a given quantity of oil and this gas will occupy 5 cubic feet in the formation. If the owner has the right to produce 500 cubic feet of gas with each barrel and the sale price of gas is 10 cents per 1,000 feet, then he has 5 cents worth of gas. The energy in the 5 cents worth of gas is worth several times this amount and to realize this energy for production this operator could be compensated for the gas and a net gain to the pool made.

Initial gas energy should be utilized to the greatest possible extent as the cost of replacing it is prohibitive. Common ownership of both products and energy will permit the greatest economical recovery. The dividing of revenue at the surface is an entirely separate problem.

W. P. Z. German[8], Tulsa.—The question as to the ownership of reservoir energy in an oil pool is a very interesting one. There is an inseparable connection between the right to take the oil and gas and reduce them to possession on the surface and the right to use reservoir energy in doing so. This energy is an invisible, intangible force or power present in the formation which confines the oil and its accompanying gas; it is imprisoned by the same physical barriers which hold the oil and gas, and its efficient functioning is attained by a control of the movement of the oil, gas and the underlying or adjacent water. However, it is unlike either the oil or gas in that it cannot be reduced to possession and saved on the surface, and in that its value lies solely in its usefulness in recovering and reducing the oil, and to some extent the gas, to possession above the surface. Its tremendous value for that purpose is now well recognized, and except therefor it is not now known to have any value at all. It can take the place of expensive equipment and operations which could partly do what it alone can do on a large scale. So, this energy must be regarded as property and as belonging to the owners of the oil pool. It is the property of those who have the right by virtue of their interests in the land over the pool to take out and own the oil and gas; but in what proportions or to what extent do they own it?

Supreme Court Decision

The Supreme Court of the United States, on May 16, 1932, in the case of Champlin Refining Company vs. Oklahoma Corporation Commission, definitely spoke as to the power to regulate the use of reservoir energy. After holding that the legislature of the State has the power to regulate oil and gas extraction in order to prevent unnecessary loss, destruction or waste, the court made the following statement which relates to use of energy:

"And that power extends to the taker's unreasonable and wasteful use of natural gas pressure valuable for lifting oil to the surface . . ."

Thus, it was in effect announced by the highest court in the land that the utilization of reservoir energy is subject to regulation under the police power of the state with a view to preventing an unreasonable and wasteful use thereof to the injury of others; that the due process of the Fourteenth Amendment constitutes no bar to the enactment and enforcement of a regulation of that kind. But, it failed to speak as to the title thereto.

In view of this holding as to the power of regulation, I have been wondering whether we should concern ourselves with the question of title. Whether the energy is the common property of all the proprietors in the pool, or whether each proprietor owns that which is attached to and is physically positioned within the boundaries of his own land at any particular moment, may, as a practical matter, be of no particular consequence, because effective regulations dealing with oil recovery will cover the use of the energy.

Ownership in Place

Certainly, so it seems to me, in those states where the oil and gas are not owned in place but constitute a common fund, no one will be likely to contend that the energy is owned in place. As to the rule in the other states where the landowner owns the oil and gas in place beneath the surface of his land, someone might make the contention that he also owns the energy lying thereunder and may draw energy from elsewhere and thereby acquire title to it. But, if he were correct, what would he gain? In such states the courts have so far sustained conservation statutes prohibiting physical waste and protecting correlative rights, and in so doing have announced the same identical rule with reference to the power of regulation and the reason therefor which obtains in those states where the oil and gas are not owned in place. For example, the very question as to whether in Texas ownership in place deprived the legislature of Texas of the power to regulate the production of oil and gas was squarely presented and expressly passed upon in a group of recent three-judge Federal Court cases. (Peoples Petroleum Company vs. Ross S. Sterling and others, decided in the summer of 1932.) There the court held that the power of regulation nevertheless existed. The court cited in support of its view the decisions of the Supreme Court in cases coming up from states where there is no absolute ownership in place, among them being Ohio Oil Company vs. Indiana and Champlin Refining Company vs. Oklahoma Corporation Commission. So, even if it should be held in such states as Texas that the energy is owned in place, still the power of regulation of its use must be the same as in states where the common fund theory obtains.

In all the states the power of regulation of production of oil and gas is predicated on the physical fact that those substances are of a migratory and fugaceous nature and that any one operator will by an excessive and disproportionate extraction from his own wells injure his neighbors when they are not able to likewise operate their wells, and that underground waste to the injury of all may occur unless there is a controlled operation of the pool as a whole. Certainly, the same reasoning applies, and with much more force, to the regulation of the utilization of the energy, and hence the power to regulate must exist and no vested property right can serve to defeat it.

Regardless of these observations, it may nevertheless become important to ascertain the location

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[4]Senior petroleum engineer, U. S. Bureau of Mines.
[5]President, Stanolind Oil & Gas Co.
[6]Trans. A.I.M.E. (1932) 98, Pet. Dev. and Tech., 38.
[7]Chief engineer, Continental Oil Co.
[8]General attorney, Skelly Oil Co.

of the title. It seems to me that whether or not the oil and gas are owned in situ, the energy can in no event be said to be anything other than the common property of all the proprietors in the pool. If there were several separate owners of specific portions of a steam boiler in which a high steam pressure had been developed and each respective owner had the right to utilize power existing within the boiler, would any one of the owners be the possessor of the right to a particular section of the existing pressure? There could be no physical separation of it. Each would be entitled to use only a fair proportionate part of the whole; and in taking it, he ought to be required to have due regard for the like right of the other owners. An obvious difference between such a situation and the one we are considering is that there the steam pressure is of no value to bring another thing of value out of the boiler, whereas, reservoir energy is of no value save to recover the oil. It does its work within the reservoir, thence up to and through the mouths of the wells. It is not only the power it possesses but the manner in which it exerts itself within the reservoir that counts. Hence, it is hardly correct here to say that a proprietor is entitled to his fair proportionate part of the energy, for all the proprietors are justly entitled to have it perform its work in an efficient manner. This may call for a substantial departure from any effort to proportionately distribute it. So, the ultimate conclusion in every state ought to be that no landowner owns any measurable part of the reservoir energy, but they all own it jointly and severally; that each has a mere right to the beneficial use of it as long as it lasts and that such use is subject to such reasonable regulation as will gain the greatest obtainable good for all.

Ownership of Energy

R. E. Hardwicke[9], Fort Worth, Tex.—Whenever the engineers can tell us how much energy is under a certain tract of land, I may make a good guess whether he owns it or not and how to determine or protect the title.

In the states where oil and gas is owned in common, the energy must also be owned in common. In states where the so-called ownership in place theory is applied, you really get back to the same problem. But this occurs to me: energy, as I understand it, is something that will do work—move something. Now if you go into that sort of ownership, as to energy in the free gas cap, and assign value to such energy, you will get into trouble.

Take this as an example: If a man has water, not oil, under his land which is a part of the water drive, then the water performs work which is beneficial to the owner of oil land. If the free gas cap owners are to be compensated for an energy value then you may have to compensate for the head of water. Are you going to deal with the fellow right next to the oil or clear on out to the outcrop? The owners at the outcrop may say: We are responsible for the whole pressure—if we did not own the outcrop and permit water to enter the sand your pressure would decline, etc.

I hope no effort is made to apportion or legally divide energy. I think it cannot be done.

J. H. Marshall[10], New Haven, Conn.—From a legal point of view, I have often found that courts in using the concept of "title" are merely stating a result rather than setting forth a reason. I think in this case, if you attempt to decide who has "title" to reservoir energy, you will be getting into a similar situation. I suggest in dealing with the ownership of reservoir energy for purposes of valuation that the lawyers and the courts must decide whether in measuring this value it is to be assumed that an operator may lawfully produce as he likes so to give his operations an element of nuisance value. I think that until the lawyers decide as to the validity of this basic assumption, engineers have not been given much to work upon.

V. H. Kulp[11], Norman, Okla.—Doctor Umpleby's desire to have a correct statement of law formulated as to the ownership of reservoir energy is commendable, but I feel it matters not in what jurisdictions we are, whether one of nonownership or so-called absolute ownership of oil and gas in place, or the newer and more proper concept of correlative rights, the police power of the state is sufficient to protect landowners in the pool in view of the fact that reservoir energy is something indivisible and should be utilized for the good of all owners of oil interests, as well as of the public.

[9]Attorney.
[10]Yale school of law, Yale University
[11]Professor of oil and gas law, University of Oklahoma.

Different View

J. A. Veasey[12], Tulsa.—I take a somewhat different view of the problem under discussion than some of the lawyers who have spoken. I will start with certain considerations of fundamental importance. In the first place, the law is a living thing. Our courts do not at once adapt their decisions to the discoveries of science and to changes in our economic and social systems. The conservatism of the law and of the judges who administer it will not admit of an immediate adjustment. But, our judicial history reveals that in the long run the decisions of our courts do fall into accord with the existing scientific, economic and social structure. The ultimate recognition of the function and of the supreme importance of reservoir energy by our courts is an example of the point of view that I am endeavoring to emphasize. It has not been so many years ago that even your profession entered upon an extensive study of reservoir energy. Furthermore, your conclusions upon the subject, while expanding gradually, have not been arrived at without differences of opinion. Now, the courts of California, Texas and Oklahoma, and the Supreme Court of the United States have a definite grasp of the concept, "reservoir energy." Either expressly or impliedly they declare that the reservoir energy of an oil pool either is owned in common by the oeprators thereof, or at least that it should be enjoyed in common. In either event, the industry has at hand legal principles that should go very far in supporting measures that not only will conserve, but that will bring about the scientific use of reservoir energy.

In the discussion that has preceded, the question that is raised is that our legal and constitutional position should be so arranged that the industry in its efforts for stabilization and conservation should regard an oil pool as involving three separate kinds of property: First, a separate ownership in the oil; second, a separate ownership in the gas in an oil pool divided according to surface lines, and then a common ownership of the reservoir energy. As I look upon the problem, a separate ownership of the oil and gas according to surface lines calls for what would amount to a measurement of these substances underground, and I do not believe that engineering opinion has reached the point that this can be done. It is my more positive opinion that the practical men in the business are not yet prepared to accept this idea of underground measurement. Nor, do I believe that we have to indulge in such refinements of ownership to accomplish our great objective. If we give full weight and scope to the community character of reservoir energy, then, indirectly, we should be in position to achieve the reforms.

Let me approach the matter in this wise. Assume the existence of a police statute that prohibited the waste of gas energy and which, through an administrative agency, provided for the use of the reservoir energy to the point of the highest efficiency. In brief, engineering and practical opinion will eventually develop methods for the use of reservoir energy that if universally adopted will meet practically every economic and conservation problem we have before us. Now, the law has already developed to such an extent that these methods, through the police power, can be compelled. Accordingly, if the reservoir energy aspect of our case is taken care of completely, then I submit that any refinement regarding title to oil and gas underground, as distinguished from reservoir energy, is of little or no practical importance.

Perhaps one of the greatest problems we will have to overcome is the situation of an operator whose well is at the top of the structure and which either produces gas only, or the oil the well produces comes from adjoining properties. There may be many variations of this situation demanding special treatment; and, in this connection, I would point to a recent decision of the Supreme Court of the United States known in our profession as the Cedar Rust case. The growing of apples in Virginia is one of the greatest enterprises of that State. In an economic sense, the presence of rather large bodies of cedar trees were not so important to that State. Cedar rust originated in the cedar trees of the State, but spread to and destroyed apple trees. The Supreme Court of Virginia adopted a police statute setting up the machinery for the destruction of cedar trees within a designated radius of apple orchards, and this was done without compensation to the owners of the cedar trees. The Supreme Court of the United States upheld this statute and it did so by balancing and weighing the relative economic importance of the two classes of property.

This suggests to my mind a possibility at least in the problem we have before us. A police measure deferring the use of free gas at the top of the structure, or limiting the production thereof and applying in the case of other properties having an advantage in respect of reservoir energy, would be of higher economic importance in the way of increasing the ultimate oil recovery than would be the unrestrained production of the gas. If the principle of the Virginia case were to be strictly applied, it would appear that this could be done without compensation to the gas lessee. But, I would not suggest that the industry go that far in this direction. A method of compensating the owners of wells producing free gas, or those whose wells had an excessively high gas-oil ratio, could be provided for, such compensation to be paid by the owners of the oil wells who gained the advantage of the gas energy of the entire pool. As a legal and constitutional principle, I feel quite certain it can be worked out.

Finally then, in this indirect way, namely, by completely conserving and using to the highest point of efficiency the reservoir energy, does not follow that we are not so much concerned with earmarking the oil and gas content of each surface proprietor? He gains exactly what he is entitled to by the general conservation and effective utilization of the reservoir energy, involving possibly some means of compensating those operators whose wells either produce gas only, or whose properties are characterized by an excessive gas-oil ratio.

[12]General counsel, Carter Oil Co.

Answer Presented

W. S. Farish[13], Houston, Tex.—Mr. Veasey has to my mind presented an answer to the difficulties, if his thesis will stand up in court.

As I understand the proposition it is this: That as long as the energy in the oil pool as represented by the free gas is needed to produce the oil, the owner of the gas has no right to use it, and if we, the oil producers, can keep the dividing line between the oil and gas constant, by simply putting back into the property the gas taken out, the owner of free gas area is not hurt; if that thesis will stand up, we have no problem. The gas owner simply takes a back seat and waits until the meeting is over. I think it is up to the lawyers.

W. Miller[14], Ponca City, Okla.—One thought comes out of this, that seems to make the situation the same as occurred many years ago. Apparently the energy belongs to the man who owns the oil, rather than to the man who owns the gas. So the oil man can say take your energy but leave the gas—or take the pound of flesh but leave the blood.

E. Oliver.—I would like to make this comment at this point: The purpose of bringing this problem into the program, is the thought that we are giving too much credit to the gas owner. When we describe the pressure in the reservoir as "gas energy" I think the engineers here will agree that the term "gas energy" is a misnomer, that there are at least two other sources from which energy in the reservoir comes. One is hydrostatic pressure and the other is weight of overburden. To what extent the latter contributes directly to the energy in a reservoir, we are unable to say, but we do know of some pools where the surface sinks away as the oil and gas are taken out of the reservoir. Thus we may give the gas owner consideration to which we will consider he is not entitled.

While reservoir energy has no legal status at this time it is important that its status be considered, so the courts will not make a similar mistake in regard to this question that they did 40 or 50 years ago on the ownership of oil; that they will not set some precedent to give the gas owner oil or something else for the use of his gas to which he will later be found not entitled.

[13]Chairman of board, Standard Oil Co. (New Jersey).
[14]Vice president, Continental Oil Co.

Petroleum Industry, Entering New Era, Hopeful of Elimination of Hot Oil and Price Cutting

By ANDREW M. ROWLEY

The petroleum industry is about to enter a new era. Supervision of its business by the Federal Government will follow approval of the code to be adopted after the hearings which start in Washington next Monday.

The administration seems to be interested primarily in three factors—shorter working hours, higher wages for labor, and the elimination of unethical practices by a minority. The oil business can and will support wholeheartedly all these three things.

Federal officials in Washington probably realize the oil industry already has done much for its employes. According to the latest report of the U. S. Department of Labor (for May, 1933) the average hours worked per week by employes of the petroleum refining industry during May was 40.1, while the average hourly earnings in this branch were fourth highest in 28 selected manufacturing industries. In the producing branch, the same report shows the average hours per week was 44.1, while the hourly earnings were third highest in 15 industrial groups.

Stop Tax Evasion and Hot Oil Production

Great benefit will accrue to the petroleum industry as a whole if the administration will set aside politics and be guided by the best interests of the big majority of the business. Much of the trouble in the past has been due to the fact the tail has wagged the dog. A few producers, insensible to the interests of their neighbors or the business as a whole, have overproduced their properties in violation of all rules, laws and regulations, and sold this overproduction below regularly posted prices, bringing the producing branch of the industry to the brink of chaos.

Cut price dealers in the gasoline market have prevented refiners and marketers from realizing any profit from their operations—in fact have made this branch of the industry operate at a loss for a long time. Tax evaders and refiners operating on illegally produced or hot oil bought under posted prices have forced gasoline prices down to a ridiculously low level.

The greatest thing the Federal Government can do to bring prosperity to the petroleum industry is to stop gasoline tax evasion and the illegal production of crude oil. Hold production to allowables and put the tax evader out of business and the oil business will prosper, more persons will be employed and better wages will be paid.

The states must co-operate, also. Allowables must be set at real market demands. Fictitious market requirements prevent recovery and the return to normal conditions. And any allowable above real market requirements will serve only to counteract the benefits which would be derived from stopping illegal production.

All Prices Should Be Increased Quickly

For instance, hot oil shipments from East Texas have been reduced to a minimum. In fact the practice during the past few days has about ceased. Now with this situation seemingly in a fair way to be cleaned up there are numerous rumors to the effect the Texas Railroad Commission is figuring on increasing the present allowable in East Texas. There is talk about making adjustments, etc. What adjustments are necessary in a field which never has held its output down to allowables set for it by duly constituted authorities? Such talk is pure poppycock and can be attributed to nothing else than politics.

All prices within the petroleum industry should be increased and increased quickly. There has been considerable misunderstanding regarding the attitude of certain companies which have not gone along with price increases as many thought they should do. It is safe to say a very large majority of companies in the oil business want higher prices and are more than willing to pay higher prices, but conditions in certain areas did not justify increases. Personally I can see no justification whatever for increasing prices in East Texas when crude oil in that area was selling below the regularly posted prices right at the time prices were increased. Raising prices in that area simply increased the incentive to overproduce and peddle hot oil. And the movement of that hot oil to markets at cut prices weakened the gasoline price structure throughout the country.

Federal Action Has Stopped Hot Oil Shipments

But the action of President Roosevelt in prohibiting the shipment in interstate commerce of crude oil produced illegally and refined products manufactured from crude oil produced in excess of allowables and prompt enforcement of this order by the administration has had a salutary effect. It has stopped hot oil shipments and shipments of gasoline manufactured from this hot oil, at least for the time being. Hot oil producers are as much out of the picture now as they were when crude oil sold in East Texas for 10 cents a barrel.

Hot oil production and shipments in East Texas averaged from 185,000 to 200,000 barrels daily, according to the best estimates available. It is said this illegally produced crude oil was being sold at 35 cents a barrel, with many sales reported under this figure.

That is the reason many companies could not see the justification in raising prices. But with hot oil shipments stopped, the situation is different, unless the Texas Railroad Commission throws another monkey wrench into the machinery by raising the allowable in East Texas.

There is no excuse whatever for an industry as big as the oil business to produce crude oil at a loss or sell its products from this raw material at a loss. It should raise prices and keep raising them until its operations show a profit. Large distributors of gasoline should no longer hesitate to mark up their quotations. The administration at Washington certainly cannot expect any increase in employment or wages from an industry which is losing money on the present price structures. Reasonable profits must be made in the oil business and right now is the time to post prices which will net reasonable profits both to the producers and the refiners.

Some Companies Actually Encourage Price Cutting

In this connection a number of oil companies which have flayed the practice of cutting prices for crude oil and gasoline have really encouraged within their own organizations the practice of cutting prices. I have in mind the matter of buying equipment. Salesmen are told "Well, I would like to give you this order but John Smith with so-and-so has made us a bid 8 per cent lower than yours and, unless you can bring your price down to his, we will have to give him the business." The salesman is forced to persuade his firm to cut prices or he loses the order.

Some companies have been constructive and broadminded enough to issue orders to their purchasing departments not to purchase cut price material. Manufacturers of oil field equipment certainly have not been making any unreasonable profits. I can hear a majority, probably, saying they have not been making any profits. Many of these manufacturers have been in the business for years. They are old, established and reliable concerns and their products are known to the oil companies. These manufacturers service the equipment they sell and keep on hand stocks of parts for this equipment. They are not out of line in their prices and companies which have had such sad experience with price cutters in the crude oil and gasoline markets most certainly should not do anything to encourage price cutting in the equipment branch of the business.

Refining Cracked Gasoline From a High Sulphur Crude Oil by the Use of Sulphuric Acid

By J. C. MORRELL, C. WIRTH III and J. R. STRONG*

While it is recognized that there are many inherent objections to the use of sulphuric acid for the treatment of petroleum distillates, particularly for the desulphurization of cracked distillates such as solution and polymerization losses and depreciation in antiknock quality of the product, it still remains practically the only reagent and commercial method in use for this purpose. It is thus of great importance to select a method or modification of sulphuric acid treatment which will give maximum results with respect to desulphurization with minimum losses. It is one of the objects of this paper to present a comparison of several modifications of sulphuric acid treatment for desulphurization of a cracked distillate containing a high percentage of sulphur.

Approximately 15 per cent of all the country's crude oil production[1] contains more than 1½ per cent of sulphur. These oils when cracked will yield gasolines which require desulphurization before marketing to meet present-day specifications. High sulphur crude oils are found in Arkansas, California, Montana, Oklahoma, Texas, Wyoming and other parts of the United States. Development of some fields has been retarded owing to refining difficulties, particularly in respect to desulphurization.

*Research and Development Laboratories, Universal Oil Products Co.

One of the notoriously high sulphur crude oils of the states is that of the Oregon Basin, Wyoming, Field. The U. S. Bureau of Mines[4] reports this crude as containing 3.22 per cent sulphur. The use of the oil as a cracking stock has been quite limited since the gasoline produced by this method is necessarily of high sulphur content. This paper presents a study of the use of sulphuric acid in the desulphurization of the cracked gasoline from the Oregon Basin, Wyoming, crude oil.

It is of interest to point out in connection with the present work that a high sulphur content is not characteristic of all of the crude oils of the Northwest area. Some of the nearby fields show paradoxically little or no sulphur. This is particularly true of the Cat Creek, Montana, and the Osage, Wyoming, crude oils which show 0.33 per cent and 0.18 per cent, respectively[5], in the Bureau of Mines survey. Due to the geographic proximity of these low sulphur crude oils, their utilization by a refiner in that area may be readily understood. In fact the blending of products from low sulphur crude oils with those from high sulphur crude oils has always been a favored economic solution of the desulphurization problem and should always be considered where possible. Hence, in one of its aspects desulphurization of the cracked gasolines from the Oregon Basin crude oil has been studied also in conjunction with the refining of these low sulphur crude oils.

Program of Work

The Oregon Basin crude oil, a blend of 85 per cent Oregon Basin and 15 per cent Cat Creek crude oils, and a blend of 70 per cent Oregon Basin, 15 per cent Cat Creek, and 15 per cent Osage crude oils were each cracked in a Dubbs unit to produce a maximum yield of high antiknock gasoline and a residuum to conform to Bunker C fuel oil specifications. The operations were conducted at 300 pounds pressure with a 950° F. transfer temperature to produce a 400° F. endpoint gasoline. The treating of each of these cracked gasolines was separately investigated.

The effect of quantity of acid, the concentration of acid, the temperature of treatment, and the type of acid treatment were determined on the gasolines from the cracking operation. In each instance all of the treating losses were determined and a complete inspection of the product was made. A sulphur distribution in the gasolines was obtained, and several treatments were made separately on various fractions of the gasolines proportionately based upon their sulphur contents. The separately treated fractions were blended and steam distilled to a finished gasoline.

Apparatus and Treating Method

In all of this work ordinary laboratory glass apparatus is employed. The apparatus is standard equipment, and the procedure in the laboratory has been developed to be comparable to results obtainable in commercial practice. The essential elements are an agitator for contacting the acid with the oil, and a steam still for rerunning the treated material. In addition other suitable laboratory apparatus and equipment for quantitative work are utilized.

Several general methods for treating have been standardized over a period of years in this laboratory and are usually referred to by definite names. These methods, together with suitable procedures for carrying out the same, are given here in detail.

A—Smple Acid-Caustic Method

1. Agitate the distillate with sulphuric acid for 30 minutes. The particular apparatus used for this purpose is a three-necked flask fitted with a baffle, a thermometer, and a mechanical stirrer consisting of a 1½-inch propeller and revolving at 2,000 to 2,500 r.p.m. The flask is surrounded with a suitable water and ice bath to maintain a temperature of 40° F. This temperature is required only when light distillates of high vapor pressure are being treated, otherwise the treatment is conducted at room temperature.

2. Allow the treated oil to settle for

(Continued on Page 34)

TABLE 1

A. CRACKED DISTILLATE—OREGON BASIN CRUDE OIL

Treatment—	Original	Simple acid-caustic							Split plumbite		Split caustic	Split plumbite	
												0-33% fraction 4 lbs., 33-66% fraction 8 lbs., residue 15 lbs.	0-33% fraction 6 lbs. 33-66% fraction 12 lbs., residue 22 lbs.
Acid, lbs. per barrel	None	6	14	6	14	14	20	14	14	14	14	8	14
Concentration, per cent	....	93	93	93	93	98	98	98	98	98	93	98	98
Temperature, deg. Fahrenheit	....	....	....	0	0	....	....	0	....	0	....	....	....
Solution, loss, per cent	....	2.3	4.2	1.4	2.9	5.2	7.6	5.3	4.5	2.5	4.7	2.6	4.1
Polymerization loss, per cent	....	0.9	1 3	2.1	2.1	3.7	3.8	3.2	2.0	2.8	3.2	2.4	1 1
Gravity, deg. A.P.I.	58.0	57.6	57.8	57.7	57.9	57.3	56.8	58.3	57.2	57.4	57.4	57 5	57.5
Endpoint, deg. Fahrenheit	397	390	396	392	396	394	396	392	393	394	394	390	394
Color, deg. Saybolt	Red	....	....	....	....	30	30	26	27	25	27	30	30
Color stability*	....	....	....	....	....	23	23	11	23	11	22	25	27
Sulphur, per cent	0.63	0.43	0.29	0.45	0.35	0 25	0.22	0.27	0.13	0.21	0.16	0.28	0.19

B. CRACKED DISTILLATE—15 PER CENT CAT CREEK AND 85 PER CENT OREGON BASIN CRUDE OILS

Treatment—	Original	Simple acid-caustic		Split plumbite			Split caustic	0-30% fraction 4 lbs., 30-100% fraction 15.5 lbs.	0-50% fraction 6 lbs., 50-100% fraction 18 lbs.	0-30% fraction 4 lbs., 30-60% fraction 6 lbs., 60-100% fraction 23 lbs.
								Split plumbite		
Acid, lbs. per barrel	None	16	16	12	16	12	16	12	12	12
Concentration, per cent	....	93	93	93	93	93	93	93	93	93
Solution loss, per cent	....	3.9	4.2	3.7	3.8	3.8	3.8	...	....	....
Polymerization loss, per cent	....	0.9	1.3	0.6	0.9	1.2	0.9	....	....	....
Gravity, deg. A.P.I.	58.3	57.6	58.1	57.5	57.8	58.0	57 6	58.1	58.1	58.0
Endpoint, deg. Fahrenheit	400	392	390	392	396	390	393	390	390	390
Color, deg. Saybolt	Red	28	29	30	27	30	30+	30+	30	30+
Color stability*	....	26	28	28	26	27	30	30+	29	30
Sulphur, per cent	0.51	0.21	0.15	0.20	0.12	0.13	0.14	0.14	0.18	0.15

C. CRACKED DISTILLATE—15 PER CENT CAT CREEK, 15 PER CENT OSAGE AND 70 PER CENT OREGON BASIN CRUDE OILS

Treatment—	Original	Simple acid-caustic		Split plumbite			Split caustic	0-30% fraction 2 lbs., 30-100% fraction 10.5 lbs.	0-40% fraction 3 lbs., 40-100% fraction 11 lbs.	0-50% fraction 4 lbs., 50-100% fraction 12 lbs.
								Split plumbite		
Acid, lbs. per barrel	None	8	8	10	12	14	12	8	8	8
Concentration, per cent	....	93	93	93	93	93	93	93	93	93
Solution loss, per cent	....	3.6	3.9	2.9	3.4	3.9	3.4	2.7	2.9	3 3
Polymerization loss, per cent	....	0.7	0.9	0.7	1.5	1 8	1.3	0.7	0.8	0.9
Gravity, deg. A.P.I.	57.9	57 2	57 1	56.2	56.3	56.3	56 7	56.9	56.7	56.6
Endpoint, deg. Fahrenheit	401	396	398	390	390	390	392	390	391	390
Color, deg. Saybolt	Red	26	29	27	30+	30+	25	30+	30+	30+
Color stability*	....	25	26	25	26	29	25	30	29	29
Sulphur, per cent	0.43	0.22	0.20	0.16	0.13	0.13	0.14	0.15	0.17	0.17

*Equivalent to two hours' noon June sunlight.

"High grade gasolines are continuing in good demand. However, low octane motor fuel is offered more freely and at concessions. The spreads between it and other grades are increasing."

—*Chicago Journal of Commerce, June 30, 1933*

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Economics of Proration Depends Upon Available Market and Equitable Allocation of Same

By E. H. GRISWOLD
Continental Oil Co., New York City*

The proration of oil production may be considered as having two phases. The first phase is the determination of the available market outlook for crude from each pool. The second phase is the equitable allocation of this market outlet to the various producers in the pool. The origin of the term, "pro rata," is symbolic of the intent of the initial proration agreements. Many producers and purchasers have interpreted proration as a means of limiting crude market rather than as a method of determining and allocating the available market.

Proration is not new to our industry, having been tried in the Pennsylvania fields prior to 1900, Cushing in 1914 and in other parts of the Mid-Continent area in 1924. The present proration era began in November, 1926, when sufficient pipe line facilities were not available for transporting the production from the Seminole Pool of Oklahoma. As new and larger lines were constructed into that area, proration was for a time discarded but returned in the early summer of 1927 as a means of limiting production to the ascertainable market demand. Similar procedure was soon applied in the Ventura Pool of California and the Yates and Hendricks Pools of Texas. Within a few months the method was extended to the major flush pools of the nation. All major pools subsequently discovered have been developed under proration.

There is, at the present time, a maze of conflicting opinion in regard to the advisability of continuing proration. Methods of allocation are frequently the basis for direct attack upon proration rules and regulations, but these attacks in many instances are only manifestations of dissatisfaction with any efforts on the part of regulatory bodies to limit the supply to any amount less than normal production.

Necessity for Some Form of Proration

After discounting liberally the fictitious potential production of our various fields, it can be safely said that the United States can produce two to three times the amount of petroleum it consumes and exports. The domestic demand for petroleum, except within narrow limits, is not subject to the will of the industry. The export demand is subject to increase only by underselling competitive nations in a market of fluctuating exchange values.

During the present economic depression, many foreign nations require revenue from taxation or exploitation of their petroleum reserves. Some of these nations own or control their mineral reserves but not having sufficient consumption for an effective consumers' tax, they are able to secure a part of the needed revenue from royalties and tariff charges on exported oil. Petroleum has been placed on the world markets at prices below the actual cost of production and not all of it has been from foreign countries.

A serious attempt was made to improve the domestic position of this country by means of a petroleum tariff. There is considerable difference of opinion as to the final net effect of tariff barriers and sufficient data are not available to support a definite conclusion. However, current events have demonstrated that a tariff alone cannot cure the ills of oversupply.

The United States contains approximately half of the world's proven reserves. This country produces 60 per cent of the world's production and actually consumes 56 per cent within its own borders. A tabular history of these factors during the present era of proration is as follows:

Year—	U. S. % of world production of crude	U.S. % of world consumption of crude & motor fuel equivalent
1926	70	61
1927	71	62
1928	68	59
1929	68	57
1930	64	56
1931	62	58
1932	60	56

Since under existing circumstances demand cannot be equalized with potential production, should all forms of proration between producers be discarded? Proration may not be necessary in the production of solid minerals. In the case of oil and gas, during periods of oversupply, proration is essential to the equitable recovery of fluids from common sources of supply. Unratable takings have resulted and will result between producers from the same pool, if operated without satisfactory proration regulations. Heretofore, those without ratable outlets have not delayed in resorting to the courts, and on occasion, to violence, to protect their property.

Benefits of Proration

The many benefits available to the producer under conditions of oversupply have been so adequately detailed by others, that only brief mention will be made here. It is an accepted fact that fewer wells are required to drain effectively a pool under restricted production than under rapid production. Where pools have been closely drilled, as under nonprorated production, large increases in ultimate recovery are frequently obtainable by proper restriction of each well's production. Reliable estimates indicate that the recovery from pools developed under proration, such as Yates and Hobbs, will be obtained at approximately one-third the cost incurred in similar and adjacent pools, developed under unrestricted market conditions. The Van Pool, Kettleman Hills, Sugarland, Rabbs Ridge and even the present thorn at Conroe represent tremendous savings in development cost, made possible by an oversupply of crude oil.

Proration also eliminates the necessity for carrying large and expensive surface stocks of petroleum.

These benefits, tangible as they are, have not been commensurate with the losses which the industry has suffered through low prices for crude oil.

Crude Price

There are many sincere protests against proration as supposedly practiced and not against proration as a principle. These protests are directed against the use of proration for the purpose of price stimulation or maintenance.

There have been charges of monopoly for price maintenance through restriction of supply. The present price should be ample proof of the absence of such monopoly, especially when the chaotic conditions are compared to those of foreign pools operated under intentional and official monopoly.

Any price level, other than one dictated by strict application of the law of supply and demand, is artificial, even at 10 cents a barrel. Since price is an important factor in the success or failure of controlled supply, it must be correlated with other pertinent factors to determine the practicability of the method of control. If such control is nonprofitable, methods of proration pertinent to limitation of supply must be discarded, but by no means the phases relative to physical waste and the fair allocation of available market among producers.

Analysis and Correlation of Crude Price

Expressions are frequently heard emphasizing the excellent statistical position of the industry as compared to a declining price structure for our products.

Chart 1 illustrates these supposed phenomena. Conditions of production, consumption and stocks are almost identical with those of 1926. Consumption has held up remarkably as compared to other industries. Production has declined since 1929 at a rate considerably in excess of our consumption decline. This condition has permitted substantial withdrawals from storage.

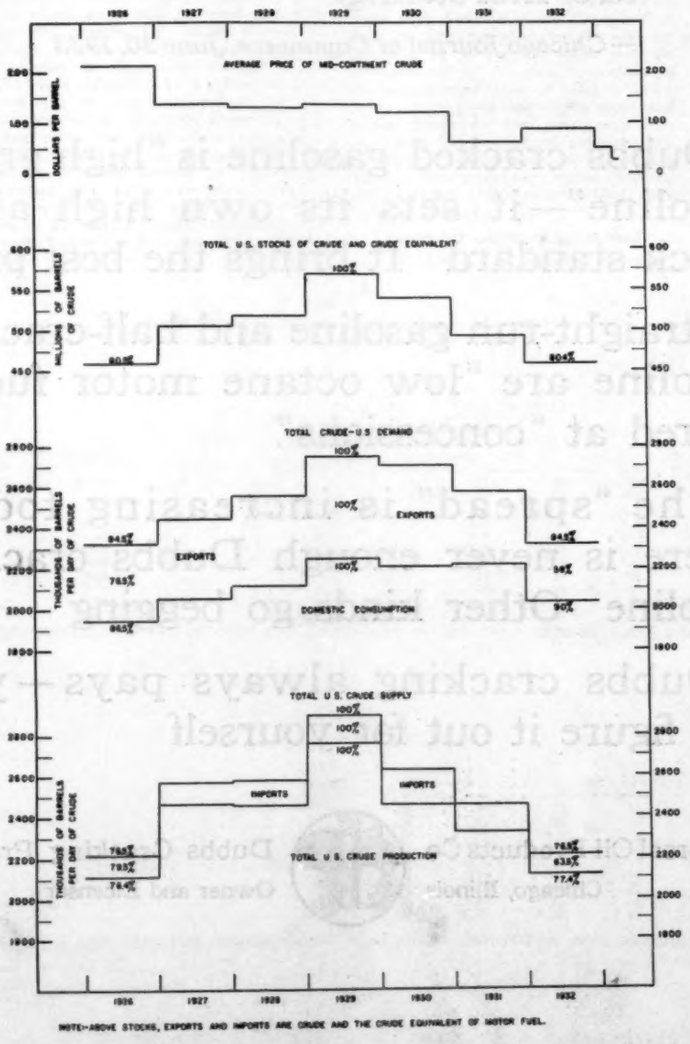
Many place the blame for drastically low prices upon so-called "hot" or illegally produced oil. Hot oil is undoubtedly a factor in the immediate situation and must be accepted as such. However, the undeniable trends toward the present conditions were evident prior to the hot oil period. Withdrawals from storage continued in spite of large amounts of hot oil. Prices have consistently failed to respond to withdrawals from stocks. The most noticeable variation from this trend was 1932, when prices were increased by the psychological effect of supposed stabilization. The reaction was opposite and drastic, as demonstrated by early 1933.

The effect of these factors on the profit and loss status of our industry is illustrated by Chart 2, and need little comment.

Chart 3 shows the only rational relationship apparent between price and another factor of the petroleum industry. The initial productions of newly completed wells are an index to the trend of new potential supply. The knowledge of a continually increasing potential production has forced prices to new and lower levels. Withdrawals from surface stor-

(Continued on Page 27)

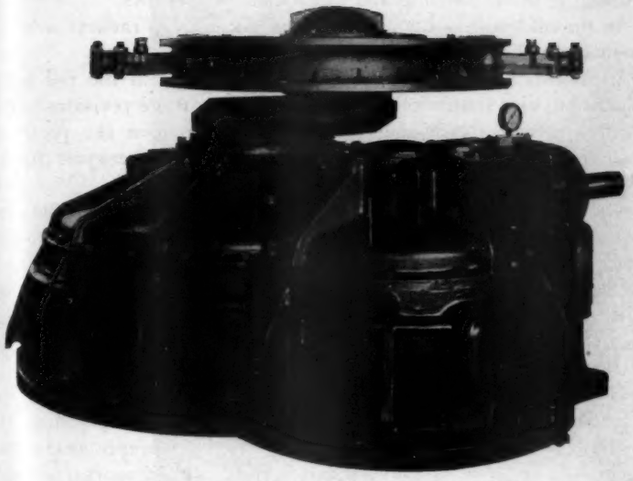
CHART 1



NOTE:-ABOVE STOCKS, EXPORTS AND IMPORTS ARE CRUDE AND THE CRUDE EQUIVALENT OF MOTOR FUEL.

*Before mid-year meeting, A.P.I., Tulsa. Author's title is "The Economics of Proration."

NATIONAL PUMPING EQUIPMENT



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National Pumping Equipment provides economical installation, efficient operation, and long, continuous, dependable service.

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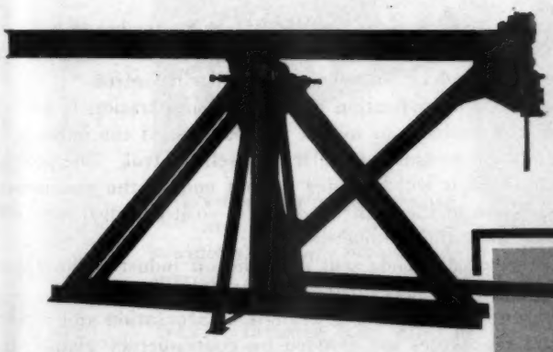
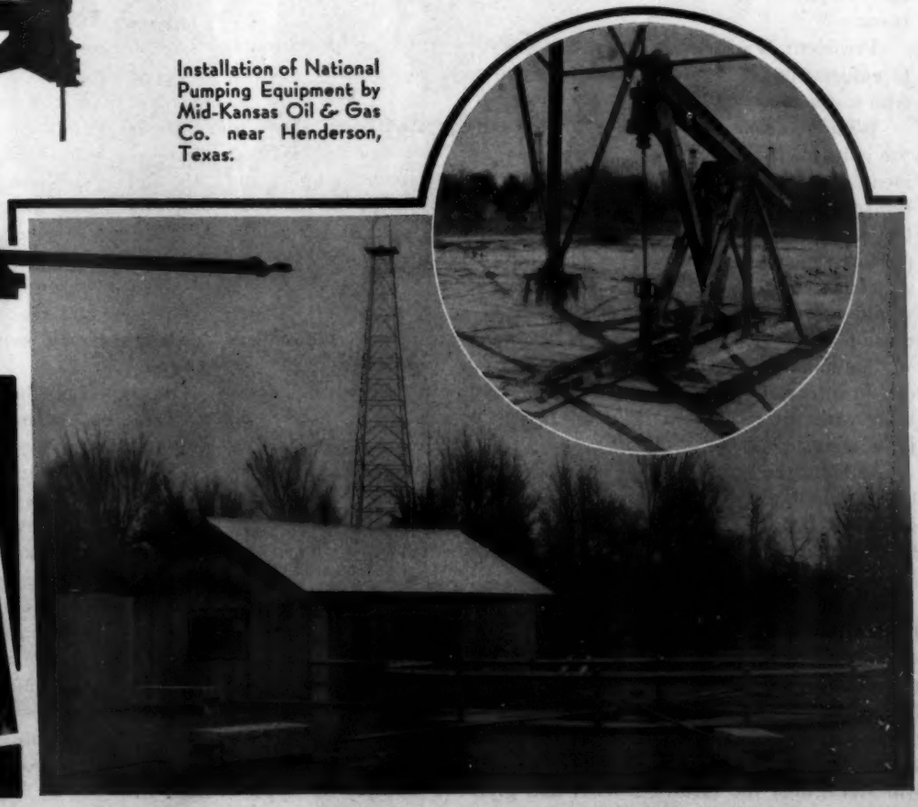


Installation of National Pumping Equipment by Mid-Kansas Oil & Gas Co. near Henderson, Texas.



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A Test for the Industry

One of the famous phrases in American history was John Sherman's laconic comment on prolonged discussion of the resumption of specific payments. He cut it short with: "The way to resume is to resume."

President Roosevelt believes the way to enforce oil proration is to enforce, not to waste time arguing about it. His answer to those who say it can't be done is to start doing it.

Without condoning the shortcomings of state authorities and of the industry itself they lacked the power now possessed by the President. The industry was handicapped by the antitrust complex and the states were hobbled by politics. The antitrust bugaboo has been locked up for the present and the President has devised a brand of politics which for the time overrides all others.

Thus we find even states-rights Texas, so recently vowing it would ne'er consent, consenting and even co-operating in the extension of federal control where state control had so miserably failed.

The hundred word executive order banning transportation of "hot oil" in interstate or foreign commerce was followed almost immediately with the regulations answering the skeptical query how could it be done.

At least the industry hopes they are the answer. They look to be airtight but the East Texas racketeer has shown himself a resourceful rascal. It may take a lot of effort and energy to stamp him out but there are indications of the necessary determination at Washington to justify optimism.

For the moment this order meaning action has put the coming hearings on the code in the background. There is nothing definite about the probable outcome of the hearings or when a code if approved will become effective. On the other hand shutting off "hot oil" in East Texas will affect the market immediately.

It should straighten out the crude price situation and let the industry know where it is going. Stabilization of the crude structure will strengthen the refined market and give the industry an opportunity to operate for the remainder of the main consuming season in the black.

Nevertheless, as federal control is clamped down, with its reports to be made out and its affidavits to be filed, there will be many an oil man brought up in the free and easy ways of earlier days in the industry who will wish it could have been averted.

And these will not be the racketeers who brought it on themselves but the great bulk of oil men who at personal sacrifice loyally supported proration only to find themselves cheated by the selfish obstinacy of a few.

But in this respect they are not different from their fellows in other industries and businesses, which is the reason for the national industrial recovery act.

The decent majority was becoming more and more at the mercy of the unscrupulous. Legitimate profits, based on a fair price for raw materials and a fair return on operations, were being whittled to nothing by price chiseling and sweatshop competitors.

In the oil business the "hot oil" and tax evasion rackets were additional complications.

In industry and business generally operations in the red led to suspensions and shutdowns, to short weeks, to wage revisions and to unemployment. Purchasing power, dependent upon the profitable employment of consumers, dwindled and carried the cycle further downward.

The national administration put its finger on the chiseler and price cutter and said if we can eradicate him we can come out of the tail-spin. The industrial recovery act is the result.

Oil men, always sturdily individualistic and confident of their ability to run their own affairs, deplore the necessity and can only hope it will work. They have struggled with the problem for years but the handicaps were too great.

Their experience with state control has not encouraged them to have much confidence in political administration, but they hope the government will be able to help with as little interference as possible.

The ban on "hot oil" transportation could not, of course, be made effective without federal enforcement. It cannot be enforced without the reports and affidavits required. However these may be disliked as an added worry and expense, if they aid in stabilizing the industry it will have been worth while.

This phase of federal control, it should be remembered, was not imposed by the government but sought by the industry and necessitated by conditions which the industry could not control.

There has been no indication that the administration is seeking control of the oil business or indeed any business if the industry or business will devise measures for effective self-control. The promise has been made that it will be aided to that end by the government through suspension of the antitrust statutes so it can deal with selling below cost and unfair competition.

The hearings on the code will give the oil industry the opportunity to show whether it is capable of self-government.

If the hearings develop into a wrangle of accusation and recrimination, if the real issues are clouded by contradictory clamor, the disputants may invite government control that they will live to regret.

It should not be impossible for the saner elements on either side to agree upon a mutually satisfactory code before entering the hearing and thereby proving their right to self-government.

As to the inevitable handful of irreconcilables, the effect of agreement by the mass of the industry should be conclusive upon the recovery administrators.

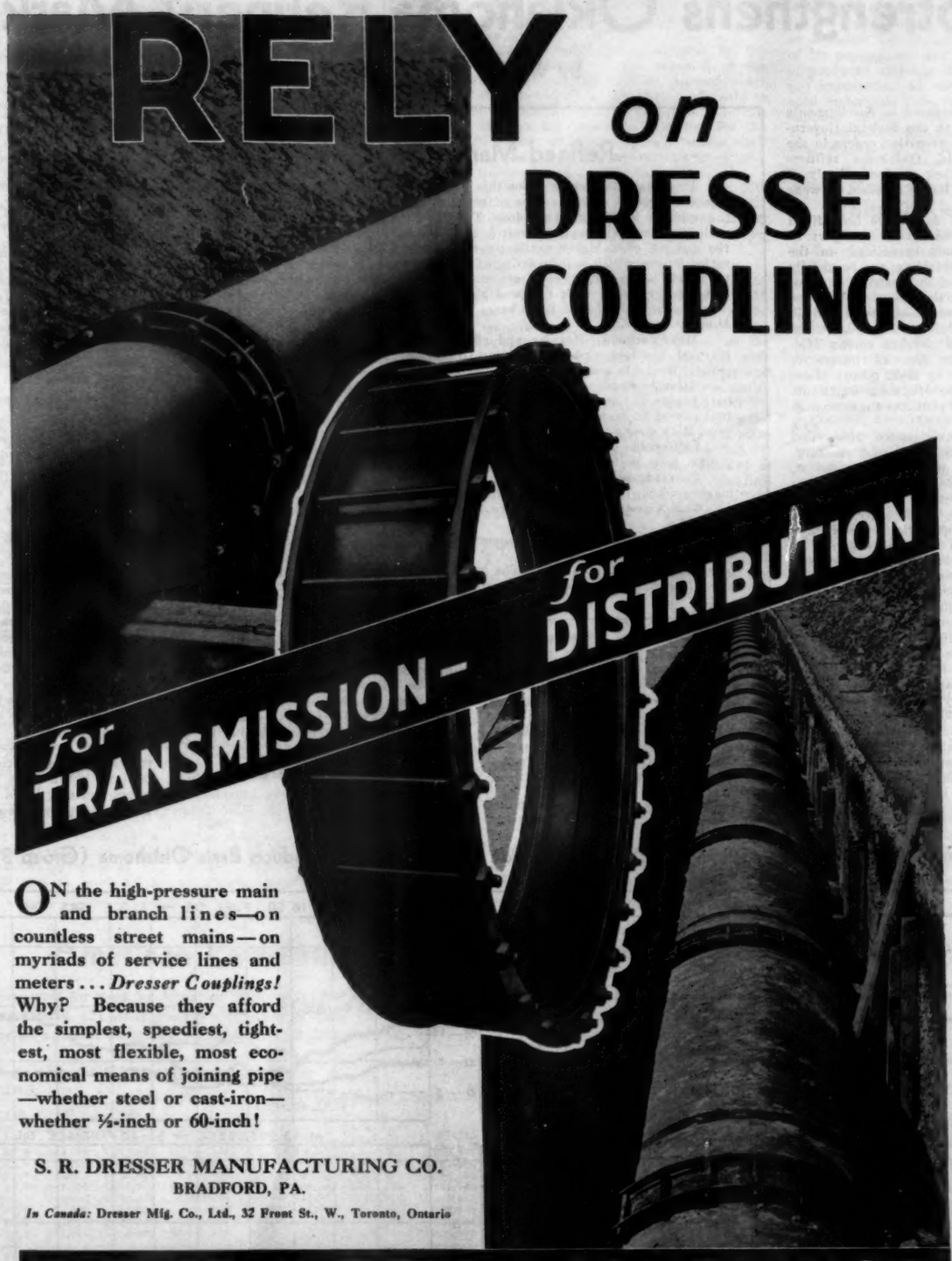
The presidential order on "hot oil" should be a warning to all concerned. Years have been spent arguing and dodging decisive action yet the whole thing is disposed of by a one hundred word order.

The hearing should not be a repetition of that experience. It may be, if the various elements do not drop their supposed grievances and suspicions and get down to a sober discussion of what is best, not for themselves only, but for the whole industry.

The way to avoid government control is to prove that you do not need it.

The oil industry will be put to that test during the hearings starting at Washington next Monday.

RELY on DRESSER COUPLINGS



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DRESSER COUPLINGS *DOMINATE!*

Federal Control of Oil Shipments Out of Texas Strengthens Oklahoma Refinery Market

By W. T. ZIEGENHAIN

Feeling better assured by developments the past week that the Federal Government will enforce proration orders in the East Texas Field, Oklahoma refiners (Group 3) held their products firmly at the higher price levels attained a week ago.

The past seven days have been filled with hopeful hesitancy on the part of sellers and cautious bargaining on the part of buyers. Gasoline was generally quoted at prices slightly above those of a week ago while the balance of the refinery products remained unchanged in the main.

The feeling also persists among Mid-Continent refiners that all buyers of crude will soon bring their posted prices up to those of the Magnolia Petroleum Co., namely the 75-cent top announced as effective July 7.

Eleven days have passed since this higher schedule was made and the largest buyers have practically ignored it. Under normal conditions this would be interpreted as certain failure for the program of raising crude prices in general and refinery quotations would have shown a weakness with the delay.

Instead, it is believed that because the ground has been cleared for the Federal agents to strictly enforce the order of the Texas Railroad Commission regarding the production of crude in the East Texas Field higher crude prices will prevail. Within one week, actual production in that field is expected to be cut more than 100,000 bbls. even though the allowable may be increased from 550,000 bbls. to 600,000 bbls. daily as believed likely. Some contend that the East Texas allowable will be considerably under that, but in either event, the move will be decidedly constructive except possibly for the refinery markets within the borders of the State itself.

Refined Market Barometer

President Roosevelt's order this week to ban "hot oil" from the market injected strength into the tone of refinery quotations beyond anything that the industry itself could have done. There is little doubt but that East Texas will come under complete control and hope is renewed this will lead to the posting of a higher crude price throughout the Mid-Continent by all major buyers which will be reflected in the markets throughout the country. Gasoline prices advanced fractionally in the Mid-Continent, California and Pennsylvania. Wax featured the Eastern Seaboard and Pennsylvania markets which followed the 15-cent advance in Pennsylvania crude posted Monday.

Mid-Continent—Regular and premium grade gasolines slightly higher. Natural gasoline strong. Kerosene, distillates and gas oil moving more slowly. Neutrals and bright stocks unchanged. Wax scarce and prices higher.

Atlantic Coast—Gasoline prices generally unchanged but firm. Red and pale engine oils advanced first time in more than a year. Advance in bunker fuel posted at major points a week ago spreading over entire coastal territory. Wax strong and prices up.

California—Refinery and natural gasoline prices advanced and market strong. Low gravity fuel slightly higher with balance of market firm.

Pennsylvania—The 15-cent advance in crude strengthened the entire market with gasoline and wax featured.

Gulf Coast—All products are being more firmly held with prices unchanged.

Chicago—Unconsigned shipments of East Texas gasoline into Chicago in anticipation of Federal control of the field held quotations to last week's level for the low octane grade. The balance of the market was firm including special naphthas that evidenced weakness early in the week.

It is generally felt that it will be easier to control immediately the movement of gasoline and other East Texas products leaving the State than it will be to control those which are consumed within its borders. For that reason Oklahoma, Louisiana, Arkansas and Kansas refiners feel they will benefit greatly from any effective move the Federal agents may make to withhold hot crude and "unchartered" refinery products from the competitive market.

Students of the Mid-Continent market believe that a differential in the gasoline price of one-quarter to one-half cent may be maintained between the Oklahoma and North Texas market due to this factor when interstate shipments of crude and its products begin to be checked.

Gasoline at Terminals

Over the past two weeks considerable gasoline has moved from the East Texas plants to Chicago, Kansas City, St. Louis and other major cities in the Middle West. Approximately 500 cars is believed to have moved to these points in that time and were without an assured consignee. Probably half of this material has been absorbed, but there still remains enough of it to dampen important jobber buying in Oklahoma.

The only sore spot in the Oklahoma gasoline market is Oklahoma City. In that area low octane gasoline is being offered near the East Texas price. The quantity is relatively small, however, and could be absorbed in a very short time should the larger refiners consider it a handicap in maintaining or improving present prices.

Effect of Q Brand

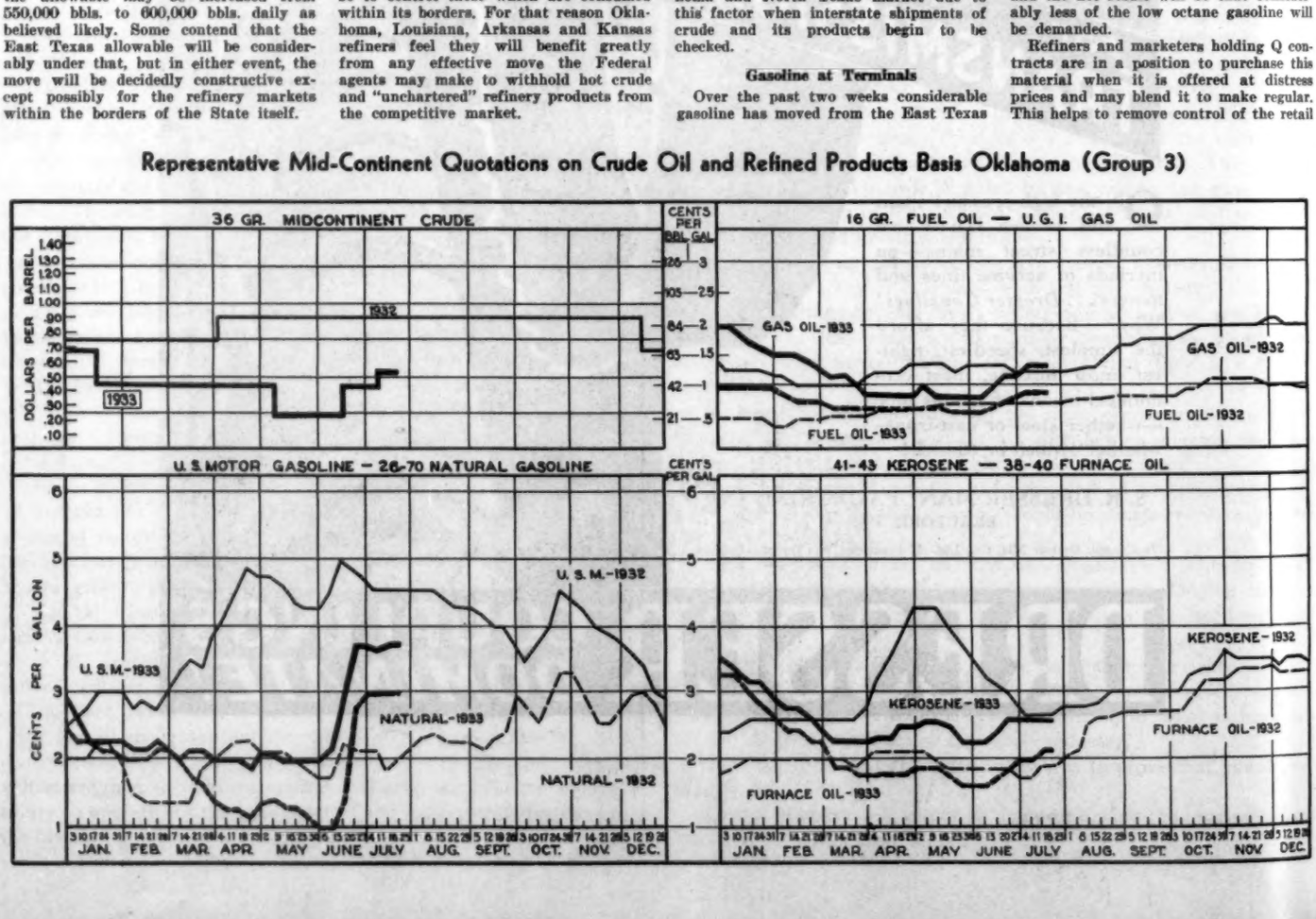
Within the past week the Ethyl Gasoline Corp. advised its licensees that Ethyl Gasoline will sell at a 2-cent price differential above that of the regular grade instead of the 3 cents or 2½ cents individual marketers have been observing in the past. This is to apply throughout all states in which the Mid-Continent markets its gasoline.

This will stimulate the sale of the premium product along with the fact that general business conditions are improving to the point where many individuals will again feel able to pay the premium for the higher octane motor fuel.

A shift from the use of third grade to second grade is also expected to follow and the net result will be that considerably less of the low octane gasoline will be demanded.

Refiners and marketers holding Q contracts are in a position to purchase this material when it is offered at distress prices and may blend it to make regular. This helps to remove control of the retail

Representative Mid-Continent Quotations on Crude Oil and Refined Products Basis Oklahoma (Group 3)



market from that group featuring low priced third grade material.

California Shipment

California marketers are concerned about another shipment of gasoline from Texas City originating in the East Texas Field which will be lifted next week to move to San Francisco and points in Washington along the Pacific Coast. Approximately 68,000 bbls. will represent the cargo and purchases of from 50 to 60 cars of natural gasoline are expected to be made in the Mid-Continent in the meantime to be included.

Gasoline Quotations

The regular and premium grades of gasoline moved up one-eighth cent within the past week while the third grade remained at 3¾ to 4 cents. The latter was quoted as low as 3½ cents early in the week at Oklahoma City but these quotations were advanced on Tuesday.

Several large refiners gave open offers to purchase material at 3½ cents in Oklahoma on Monday and Tuesday but instead of offers the sellers advanced the price. The 3⅝-cent low octane gasoline, basis Group 3, said to be available in East Texas early in the week was also gone by Tuesday.

Kerosene and Distillates

Except for a normal amount of buying of kerosene and distillates to fulfill current needs, the market in these products attracted little attention. The 41-43 grade of kerosene was firmly quoted at 2⅝ to 2¾ cents.

There continued to be offers to purchase distillate at prices below the regular market for the purpose of storing but refiners were not interested in selling on this basis in face of a rising market.

Gas Oil and Fuel Oil

Gas oil prices remained unchanged and the volume traded was normal in all grades. This was not true of fuel oils, however, as buyers found it difficult to make purchases in desired quantities at the current price level. The result was a 2½-cent per barrel advance in the grades below 18 gravity. The balance of the list was in a position to move upward with any additional buying or a general crude advance.

Natural Gasoline

Natural gasoline found itself in a stronger position during the past week because of the expected purchase of an additional 50 to 60 cars to move in a cargo of East Texas gasoline to California as mentioned previously.

However, manufacturers were not able to get the normal differential in price for the low vapor pressure grades based upon the 3 cents as the bottom of the market for the 26-70 grade.

Neutrals and Bright Stocks

There was no change in the price for either neutrals or bright stocks. The advance of 15 cents in all grades of Pennsylvania crude early in the week seemed to assure Mid-Continent refiners that lubricating oil prices in that area would be well supported.

Wax Quotations

Wax has become scarce in the Oklahoma market and buyers are offering up to 3 cents delivered at New Orleans. Practically all wax production has been contracted for and stocks are abnormally low. A nominal market of 2½ to 2¾ cents exists with prices likely to advance in Oklahoma with a continuation of the present rate of domestic consumption.

Revise Instructions for the Application of Extended 1 Cent Gasoline Tax

WASHINGTON, D. C., July 17.—To clarify the law in respect to H.R. 5,040 Public No. 73, Seventy-third Congress, an "act to extend the gasoline tax for one year," etc., the Bureau of Internal Revenue has issued the following:

That Section 629 of the Revenue Act of 1932 is amended by striking out the following: ", or after June 30, 1933, in the case of articles taxable under Section 617, relating to the tax on gasoline."

* * * * * *

Sec. 4. (a) Effective 15 days after the date of the enactment of this act, Section 620 of the Revenue Act of 1932 is amended to read as follows:

Sec. 620. Tax-Free Sales.—Under regulations prescribed by the commissioner with approval of the secretary, no tax under this title shall be imposed with respect to the sale of any article—

1. For use by the vendee as material in the manufacture or production of, or as a component part of an article enumerated in this title.

2. For resale by the vendee for such use by his vendee, if such article is in due course so resold.

3. For resale by the vendee to a state or political subdivision thereof for use in the exercise of an essential governmental function, if such article is in due course resold.

For the purposes of this title the manufacturer or producer to whom an article is sold under Paragraph 1 or resold under Paragraph 2 shall be considered the manufacturer or producer of such article. The provisions of Paragraphs 1 and 2 shall not apply with respect to tires or inner tubes or articles enumerated in Section 604, relating to the tax on furs.

(b) Effective 15 days after the date of the enactment of this act, Section 601 (c)(1) of the Revenue Act of 1932 is amended by adding at the end thereof the following:

Under regulations prescribed by the commissioner with the approval of the secretary, no tax shall be imposed under this section upon lubricating oils sold to a manufacturer or producer of lubricating oils for resale by him, but for the purposes of this title such vendee shall be considered the manufacturer or producer of such lubricating oils.

(c) Effective 15 days after the date of the enactment of this act, Section 621 (a) of the Revenue Act of 1932 is amended by inserting after Paragraph 2 thereof the following new paragraph:

3. To a manufacturer, producer, or importer in the amount of tax paid by him under this title with respect to the sale of any article to a dealer, if the manufacturer, producer, or importer has in his possession such evidence as the regulations may prescribe that (A) such article has after the date this paragraph takes effect been delivered by the dealer to a state or political subdivision thereof for use in the exercise of an essential governmental function and (B) the manufacturer, producer, or importer has repaid or agreed to repay the amount of such tax to the dealer or has obtained the consent of the dealer to the allowance of the credit or refund.

Sec. 5. Effective 15 days after the date of the enactment of this act, Title IV of the Revenue Act of 1932 is amended by adding at the end thereof a new section to read as follows:

Sec. 360. Exemption from Tax of Certain Supplies for Vessels.—Under regulations prescribed by the commissioner, with the approval of the secretary, no tax under this title shall be imposed upon any article sold for use as fuel supplies, ships' stores, sea stores, or legitimate equipment on vessels of war of the United States or of any foreign nation, vessels employed in the fisheries or in the whaling business, or actually engaged in foreign trade or trade between the Atlantic and Pacific ports of the United States or between the United States and any of its possessions. Articles manufactured or produced with the use of articles upon the importation of which tax has been paid under this title, if laden for use as supplies on such vessels, shall be held to be exported for the purpose of Section 601(b).—C. E. K.

Issue Ruling for Taxing White Oil Used in Bakery

A ruling has been issued by the Bureau of Internal Revenue concerning the taxability of white oils used in bakeries in lubricating parts of machinery and also used to prevent dough from sticking to baking troughs, boards and pans. On this subject the bureau states:

"As it is the understanding of this office that white oils are principally used to lubricate parts of machinery used in the preparation of bread dough, the question was submitted to the Bureau of Standards, Department of Commerce, as to whether white oils are lubricating oils when used in connection with the preparation or manufacture of bread dough.

"According to an opinion rendered by that bureau any oil, used to prevent sticking between surfaces moving relative to one another is acting as a lubricant and therefore white oils used to lubricate parts of machinery such as dividers, etc., through which the dough passes or is worked, are used for lubricating purposes.

"Under treasury decision No. 4,339, issued July 16, 1932, any oil having both lubricating and nonlubricating uses is taxable when sold or used for lubrication.

"It is therefore held that white oils used to lubricate moving parts of machinery to prevent sticking in connection with the preparation of bread dough is subject to the tax of 4 cents a gallon as provided by Section 601 (c) (1) of the Revenue Act of 1932.

"On the other hand, if a certificate in accordance with Paragraph 2 of treasury decision No. 4,339 is furnished to the effect that white oils will be used solely to prevent dough from sticking to baking troughs, boards, and pans where no relative motion is involved, such oils may be purchased tax-free."

American Petroleum Institute Weekly Refinery Statistics

Figures below reported for week by American Petroleum Institute. (1) Per cent refinery capacity represented. (2) Daily average crude runs to stills. (3) Total motor fuel stocks. (4) Gas oil and fuel oil stocks. All figures in 42-gallon barrels.

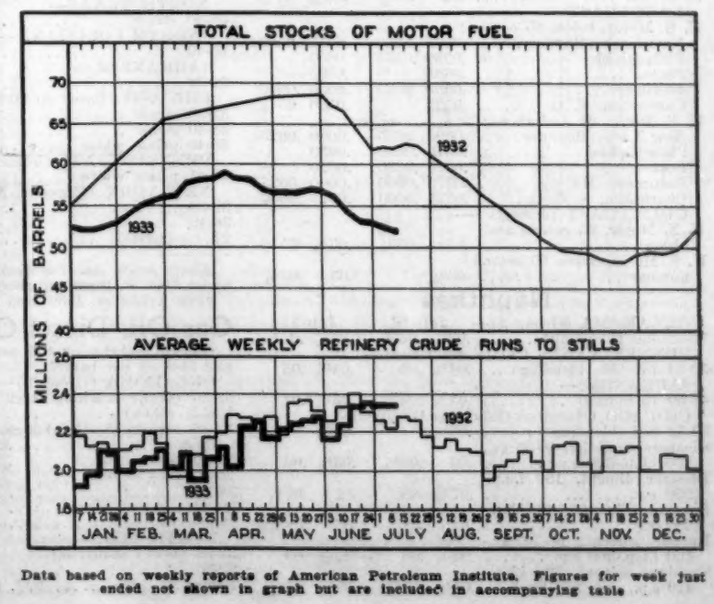
Week Ending July 15, 1933, Compared to Week Ago

	Week ending July 15, 1933				Week Ending July 8, 1933			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
East Coast	100.0	487,000	14,652,000	7,487,000	100.0	439,000	15,184,000	7,329,000
Appalachian	92.6	93,000	1,916,000	926,000	92.6	86,000	2,007,000	965,000
Ind., Ill., Ky.	97.3	359,000	7,377,000	4,404,000	97.3	351,000	7,271,000	4,322,000
Okla., Kans., Mo.	82.1	256,000	4,550,000	3,668,000	81.3	253,000	4,348,000	3,637,000
Inland Texas	58.7	104,000	1,283,000	2,146,000	58.3	86,000	1,263,000	2,054,000
Texas Gulf	98.0	417,000	6,150,000	6,742,000	98.0	438,000	6,190,000	6,634,000
Louisiana Gulf	100.0	114,000	1,168,000	1,902,000	100.0	144,000	1,196,000	2,023,000
N. La. and Ark.	92.6	43,000	252,000	498,000	92.6	40,000	265,000	504,000
Rocky Mtn.	78.8	47,000	1,082,000	760,000	78.8	49,000	1,064,000	731,000
California	96.9	457,000	13,368,000	99,243,000	96.9	468,000	13,481,000	98,824,000
Total U. S.	93.2	2,376,000	51,798,000	127,776,000	92.2	2,345,000	52,168,000	127,024,000

Total motor fuel stocks, Bureau of Mines basis, 53,800,000 bbls.

Week Ending July 15, 1933, Compared to Year Ago

	Week ending July 15, 1933				Week ending July 16, 1932			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
East Coast	100.0	487,000	14,652,000	7,487,000	100.0	453,700	19,187,000	7,702,000
Appalachian	92.6	93,000	1,916,000	926,000	91.8	102,200	2,264,000	1,183,000
Ind., Ill., Ky.	97.3	359,000	7,377,000	4,404,000	98.9	314,300	5,396,000	4,433,000
Okla., Kans., Mo.	82.1	256,000	4,550,000	3,668,000	89.6	230,700	5,297,000	3,454,000
Inland Texas	58.7	104,000	1,283,000	2,146,000	76.5	96,000	1,641,000	2,369,000
Texas Gulf	98.0	417,000	6,150,000	6,742,000	99.8	433,300	5,879,000	5,158,000
Louisiana Gulf	100.0	114,000	1,168,000	1,902,000	100.0	93,100	1,799,000	4,593,000
N. La. and Ark.	92.6	43,000	252,000	498,000	97.0	41,300	231,000	747,000
Rocky Mtn.	78.8	47,000	1,082,000	760,000	89.4	43,300	1,872,000	649,000
California	96.9	457,000	13,368,000	99,243,000	96.7	480,100	15,385,000	99,342,000
Total U. S.	92.2	2,376,000	51,798,000	127,776,000	95.1	2,288,000	62,552,000	132,635,000



Data based on weekly reports of American Petroleum Institute. Figures for week just ended not shown in graph but are included in accompanying table

REFINERY AND CRUDE PRICES

Quotations on refined products are for interstate or export movement except as otherwise noted

EXCLUSIVE OF TAXES

The following quotations are exclusive of the Federal excise taxes of 1½ cents a gallon on gasoline and 4 cents on lubricating oils, which became effective June 17, 1933.

Refinery Gasolines

	July 18		July 11	
OKLAHOMA (Group 3)—				
*U. S. Motor grades:				
Regular	.04⅝	.04¾	.04½	.04¾
Premium	.04⅞	.05⅛	.04¾	.05
Third grade	.03¾	.04	.03¾	.04
60-62 400 grades:				
Regular	.04⅝	.04⅞	.04⅝	.04⅞
Premium	.04⅞	.05⅛	.04⅞	.05⅛
Third grade	.03⅞	.04⅛	.04⅛	.04¼
64-66 390	.04⅝		.04⅝	
64-66 375	.04¾	.05	.04¾	
68-70 350	.04¾	.05	.04¾	.04⅞
NORTH TEXAS—				
U. S. Motor grades:				
Regular	.04½		.04⅜	
Premium	.04⅝	.05	.04⅝	.04⅞
Third grade	.03¾	.03⅞	.03¾	.04
60-62 400	.04	.04¼	.03⅞	.04⅛
64-66 390	.04	.04¼	.04	.04¼
64-66 375	.04⅜	.04½	.04⅜	
64-66 300	.04½		.04½	.04¾
†NORTH LOUISIANA—				
U. S. Motor grades:				
Regular	.04¾	.05	.04⅝	.04⅞
Premium	.05	.05⅛	.04⅞	.05⅛
Third grade	.04½	.04⅝	.04⅜	.04⅝
60-62 400	.04½	.04¾	.04½	
†ARKANSAS—				
U. S. Motor grades:				
Regular	.04¾	.05	.04⅝	.04⅞
Premium	.05		.04⅞	.05
Third grade	.04½		.04⅜	
CHICAGO (Based on Oklahoma Group 3)—				
U. S. Motor grades:				
Regular	.04½	.04¾	.04⅜	.04⅝
Premium	.04⅝	.04⅞	.04½	.04¾
Third grade	.03¾	.04	.03⅝	.04
60-62 400	.04	.04⅛	.03⅞	.04
64-66 375	.04¼	.04⅜	.04⅛	.04¼
68-70 360	.04⅜	.04½	.04¼	.04⅜
Aviation fighting grade	.04½	.04¾	.04⅜	.04⅝

***Octane Ratings**—The following octane ratings apply to the three grades of U. S. Motor gasoline: Regular 60-64 octane number; premium, 65 and above octane number; third grade, 59 and below octane number. Octane ratings determined by C.F.R. Motor Method.

†For Arkansas, Louisiana and Mississippi delivery.

PENNSYLVANIA (inland refineries)—				
U. S. Motor	.05⅜		.05¼	.05½
60-62 400	.05½	.05⅞	.05⅜	.05½
64-66 375	.05⅞	.06	.05½	
68-70 350	.06¼		.05½	.05¾
CALIFORNIA (domestic movement)—				
54-58 U. S. Motor	.06½	.07½	.05¾	.07
58-60 400	.07	.08	.06½	.07½
EAST COAST—				
U. S. Motor, below 65 octane:				
New York (Bayonne)	.0575	.0590	.0575	.0590
Philadelphia	.0550	.0575	.0605	
Boston	.0595		.0595	
Baltimore	.0550	.0575	.0550	.0600
Charleston, S. C.	.0525		.0550	.0575
U. S. Motor, 65 and above:				
New York (Bayonne)	.0600	.0615	.0600	.0625
Philadelphia	.0575	.0600	.0630	
Boston	.0620	.0630	.0620	
Baltimore, Md.	.0575	.0600	.0600	.0625
Charleston, S. C.	.0575	.0600	.0575	.0600
GULF COAST (domestic)—				
U. S. Motor, 65 octane and above	.05⅝	.05¾	.05¼	.05½
U. S. Motor, below 65 octane number	.05¼		.05	.05¼

Naphthas

OKLAHOMA (Group 3)—	July 18		July 11	
50-52 450 (blending)	.03⅝	.03¾	.03½	.03¾
PENNSYLVANIA (inland refineries)—				
50-54 420-450 (blending)	.04⅞	.05	.04¾	.05
†ARKANSAS—				
48-50 (blending)	.03⅞	.04	.03¾	.04
CHICAGO (Based on Oklahoma Group 3)—				
50-52 450 (blending)	.03⅞		.03¾	
Cleaners' naphtha, 56-58 gr., 200 i.b.p.-320 e.p.	.06	.06¼	.05¾	.06
Lacquer diluent, 180 i.b.p.-250 e.p.	.07½	.08	.07	.07¼
Lacquer diluent, 140 i.b.p.-200 e.p.	.08	.08½	.08	.08¼
Rubber solvent, 68-70 gr.-100 i.b.p.-300 e.p.	.05¾	.06	.05¾	.06
Stoddard solvent, 300 i.b.p.-410 e.p., over 83° flash	.05½	.05¾	.05¼	.05½
Pet. thinner, 290-300 i.b.p.-415 e.p., over 83° flash	.05	.05¼	.05	.05¼
V.M.&P. naphtha, 56-58 gr., 190-200 i.b.p.-330 e.p.	.05¾	.06	.05½	.05¾
Petroleum spirits	.04¾	.05	.04½	.04¾

Natural Gasolines

	July 18		July 11	
OKLAHOMA (Group 3)—				
Grade 18-55	.03½		.03¼	.03½
Grade 26-70	.03		.03	
Grade 30-70	.02⅞		.02⅞	
*Low pressure grades:				
15 lb. v.p. (max.)	.03½	.03¾	.03½	.03¾
11 lb. v.p. (max.)	.04	.04¼	.04	
NORTH TEXAS—				
Grade 18-55	.03½		.03¼	.03⅜
Grade 26-70	.03		.02⅞	.03
Grade 30-70	.02⅞		.02⅞	
*Low pressure grades:				
15 lb. v.p. (max.)	.03½	.03¾	.03½	.03¾
11 lb. v.p. (max.)	.04		.03⅞	.04
NORTH LOUISIANA—				
Grade 26-70	.03¼	.03½	.03¼	.03½
CALIFORNIA—				
75-78 375	.04¾	.06	.04	.04½

Kerosenes

(All kerosenes water white)

	July 18		July 11	
OKLAHOMA (Group 3)—				
41-43	.02⅝	.02¾	.02⅝	.02¾
42-44	.02¾	.03	.02¾	.03
NORTH TEXAS—				
40-41	.02½		.02½	
41-43	.02½	.02¾	.02½	.02¾
†NORTH LOUISIANA—				
41-43	.03		.03	
42-44	.03¼		.03¼	
†ARKANSAS—				
41-43	.03		.03	
PENNSYLVANIA (inland refineries)—				
45	.04⅛		.04⅛	
46	.04¼		.04¼	
47	.04⅜		.04⅜	
CHICAGO (Based on Oklahoma Group 3)—				
41-43	.02⅝	.02¾	.02⅝	.02¾
42-44	.02¾	.02⅞	.02¾	.02⅞
*CALIFORNIA—				
38-40 high burning test	.03¾	.04¼	.03¾	.04¼
NEW YORK (Bayonne, N. J.)—				
41-43	.05	.05¼	.05	.05¼
GULF COAST (domestic)—				
41-43 water white	.04	.04¼	.04	.04¼

*For Pacific Coast consumption.

†For Arkansas, Louisiana and Mississippi delivery.

Furnace Oils and Tractor Fuels

	July 18		July 11	
OKLAHOMA (Group 3)—				
32-36 straw	.02⅛	.02¼	.02⅛	.02¼
36-38 straw	.01⅞	.02⅛	.01⅞	.02⅛
38-40 straw	.02⅛		.02⅛	
39-41 prime	.02⅛	.02¼	.02⅛	.02¼
NORTH TEXAS—				
38-40 straw	.02	.02⅛	.02	.02⅛
†NORTH LOUISIANA—				
36-40	.02½	.02¾	.02½	.02¾
†ARKANSAS—				
32-36	.02½	.02⅝	.02½	.02⅝
CHICAGO (Based on Oklahoma Group 3)—				
32-36 straw	.02	.02⅛	.02	.02⅛
38-40 straw	.02⅛	.02¼	.02⅛	.02¼
38-40 prime white	.02¼	.02⅜	.02¼	.02⅜
PENNSYLVANIA (inland refineries)—				
40-41 prime white	.03⅜		.03⅜	
NEW YORK (Bayonne, N. J.)—				
32-36	.04		.04	
36-40	.05		.05	
21 (industrial)	.03½		.03½	

Above prices are for distillate oils of zero cold test under 190° F. flash and good odor.

†For Arkansas, Louisiana and Mississippi delivery.

Gas Oil, Diesel Oil and Fuel Oil

Gas oil (G.O.) quoted per gallon basis; Diesel oil and fuel oil per barrel.

	July 18		July 11	
OKLAHOMA (Group 3)—				
32-36 (G.O.) cracking stock	.01¼	.01⅜	.01¼	.01⅜
U.G.I. (G.O.)	.01¼	.01⅜	.01¼	.01⅜
32-36, zero to 15 (G.O.) high flash	.01⅝	.01¾	.01⅝	.01¾
28-30, zero to 10	.70	.75	.70	.75
26-30, zero to 10	.65	.70	.65	.70
24-26	.50	.55	.50	.55
20-22	.45	.50	.45	.50
Below 16	.40	.45	.37½	.42½
NORTH TEXAS—				
32-36 (G.O.) industrial	.01¼		.01¼	
22-26	.45	.50	.45	.50
Below 20	.40	.45	.40	.45
†NORTH LOUISIANA—				
32-36 (G.O.) zero	.02½		.02½	
14-16	.35		.35	
†ARKANSAS—				
30-32 (G.O.) zero	.02½		.02½	
14-16	.35		.35	
CHICAGO (Based on Oklahoma Group 3)—				
32-36 (G.O.) industrial	.01⅜	.01½	.01⅜	.01½
28-30 (zero)	.70	.80	.70	.80
26-28 (zero)	.65	.75	.65	.75
22-26 (zero)	.60	.65	.60	.65
18-22 (zero)	.55	.60	.55	.60
Below 18	.40	.45	.40	.45

Note: Fuel oils of more than 40 cold test generally 5 to 15 cents per barrel less in all areas than shown in above tables.

†For Arkansas, Louisiana and Mississippi delivery.

PENNSYLVANIA (inland refineries)—				
36-40	.03⅜		.03¼	
CALIFORNIA—				
30-34 (G.O.) per bbl.	.80	.90	.80	.90
27 plus Diesel	.80	.90	.80	.90
15-19 bunker (at tidewater)	.50	.60	.50	.60
15-19 (cargo lots)	.45	.55	.45	.55
15-19 (tank cars)	.42½	.50	.40	.50
GULF COAST—				
28-30 (G.O.)	.03		.03	
28-30 Diesel	1.50		1.50	
Bunker C (bulk cargoes)	.50	.55	.50	.55
Bunker C (bunkers)	.60		.60	
NEW YORK (Bayonne, N. J.)—				
28 plus (G.O.)	.04		.04	
*28-30 Diesel	1.75		1.75	
26-30 Diesel (tank cars)	.04		.04	
‡Bunker C	.80	.85	.80	.85

*Lighterage 6½ cents per barrel.

†Lighterage 5 cents per barrel.

‡Contract price at New York Harbor to ocean-going steamships only.

Petroleum Coke*

Prices per ton f.o.b. refineries in Chicago area.

Breeze (screenings)	4.75	4.50
Still runs	5.75	5.50
Lump and egg	6.75	6.50

*Refineries will absorb freight to 80 cents a ton.

Neutral Oils

(Viscosity at 100° F. and color)

	July 18		July 11	
OKLAHOMA (Group 3)—				
Zero to 10 Cold Test:				
150-3	.07¼	.07½	.07¼	.07½
180-3	.08½	.08¾	.08½	.08¾
180-4	.08¼	.08½	.08¼	.08½
200-3	.09	.09¼	.09	.09¼
200-4	.08¾	.09	.08¾	.09
240-3	.11	.11¼	.11	.11¼
240-4	.10¾	.11	.10¾	.11
280-3	.12	.12¼	.12	.12¼
280-4	.11½	.11¾	.11½	.11¾
300-3½	.12¾	.13	.12¾	.13
350-3½	.13¾	.14	.13¾	.14
400-4	.14¾	.15	.14¾	.15
500-4½	.15¾	.16	.15¾	.16
100-2 paraffin oil	.05¼	.05½	.05¼	.05½
15-30 Cold Test:				
200-3	.08¼	.08½	.08¼	.08½
200-4	.08	.08¼	.08	.08¼
240-3	.10¼	.10½	.10¼	.10½
240-4	.10	.10¼	.10	.10¼
280-3	.11¼	.11½	.11¼	.11½
280-4	.11	.11¼	.11	.11¼
PENNSYLVANIA—				
150 vis., No. 3, 400-405:				
Zero pour test	.17½	.18	.17½	.18
10 pour test	.17	.17½	.17	.17½
15 pour test	.15½	.15¾	.15½	.15¾
25 pour test	.14¾	.15	.14¾	.15
180 vis., No. 3, 25 pour test	.16¼	.16½	.16¼	.16½
200 vis., No. 3:				
Zero pour test	.20½	.20¾	.20½	.20¾
10 pour test	.19½	.19¾	.19½	.19¾
15 pour test	.18½	.18¾	.18½	.18¾
25 pour test	.17¾	.18	.17¾	.18
GULF COAST—				
Pale Oils:				
100-2-2½	.05½		.05½	
200-3	.06¼	.06½	.06¼	.06½
300-3	.07¾	.08	.07¾	.08
500-3½	.09¾	.10	.09¾	.10
750-3½	.10¾	.11	.10¾	.11
1,200-3½	.12¾	.13	.12¾	.13
2,000-4	.14¾	.15	.14¾	.15
Red Oils:				
200-5-6	.05½		.05½	
300-5-6	.06¼	.06½	.06¼	.06½
500-5-6	.07¾	.08	.07¾	.08

750	.12¾	.13	.12¾	.13
1,200-5-6	.12¾	.13	.12¾	.13
2,000-6 plus	.14¾	.15	.14¾	.15
CALIFORNIA—				
Pale Oils:				
100-2½-3	.09	.09½	.09	.09½
200-2½-3	.09½	.10	.09½	.10
300-3-3½	.10½	.11	.10½	.11
350-3-4	.11	.11¼	.11	.11¼
400-3-4	.11½	.11¾	.11½	.11¾
450-3-4	.11¾	.12	.11¾	.12
550-3-4	.12	.12½	.12	.12½
Red Oils:				
200-4-5	.09½	.10	.09½	.10
300-5-6	.10½	.11	.10½	.11
350-5-6	.11	.11½	.11	.11½
400-5-6	.11½	.11¾	.11½	.11¾
450-5-6	.11¾	.12	.11¾	.12
500-5-6	.12	.12¼	.12	.12¼
600-5-6½	.12¼	.12½	.12¼	.12½
700-6½ plus	.12½	.12¾	.12½	.12¾
750-6½ plus	.12¾	.13	.12¾	.13
900-6½ plus	.13	.14½	.13	.14½

Bright and Steam Refined Stocks

OKLAHOMA (Group 3)—	July 18		July 11	
630 light green	.06¾	.07¾	.06¾	.07¾
600 light green S.R.	.06¼	.07¼	.06¼	.07¼
600 dark green S.R.	.04¾	.05¾	.04¾	.05¾
Bright Stocks:				
190-200 D	.22½	.23½	.22½	.23½
150-160 D, 0-10	.20¾		.20¾	
150-160 D, 10-25	.20¼		.20¼	
150-160 D, 25-40	.19¾		.19¾	
150-160 E	.18¾		.18¾	
PENNSYLVANIA—				
600 S.R.	.13¼	.13½	.13¼	.13½
650 S.R.	.15½	.16	.15½	.16
600 Pennsylvania flash	.16½	.16¾	.16¼	.16¾
650 D filtered	.21½	.21¾	.21½	.21¾
600 E filtered	.16¾	.17¼	.16¾	.17¼
Pennsylvania Grade bright stock:				
No. 8 color, 145-50 vis., at 210; 540-550 flash:				
10 pour test	.25½	.26	.25½	.26
15 pour test	.24	.24½	.24	.24½
25 pour test	.23	.23½	.23	.23½

Wax and Petrolatum

(Prices per pound)

	July 18		July 11	
OKLAHOMA (Group 3)—				
124-126 white crude scale	.02½	.02¾	.02¼	.02⅜
PENNSYLVANIA—				
122-124	.03	.03⅛	.02½	.02⅝
124-126	.03	.03⅛	.02⅝	.02¾
NEW YORK HARBOR—				
120-122 (a.m.p. basis)	.0325		.0325	
125-127	.0355		.0330	
130-132	.0410		.0410	
133-135	.0475		.0475	
135-137	.0500		.0500	
Petrolatum in barrels in carload lots:				
Dark green	.01⅞		.01⅞	
Amber	.02		.02	
Extra amber	.02⅜		.02⅜	
Lily white	.05½		.05½	
Snow white	.06½		.06½	
Cream	.04½		.04½	
CHICAGO (f.o.b. switching district)*—				
122-124	.0365	.0375	.0365	.0375
125-127	.0390	.0400	.0390	.0400
127-129	.0405	.0415	.0405	.0415
130-132	.0465	.0475	.0465	.0475
132-134	.0490	.0500	.0490	.050)

*Cents per pound on carlot orders in burlap bags of 225 lbs. approx.
Add 3° F. for a.m.p.

Export Prices

GASOLINE

GULF COAST—	July 18	July 11
U. S. Motor	.04½	.04½

60-62 400	.04¾		.04¾	
61-63 390	.04¾		.04¾	
64-66 375	.04⅞	.05	.04⅞	.05
LOS ANGELES, CALIF.—				
U. S. Motor, 53-55 437 e.p.	.04	.04½	.03¾	.04¼
U. S. Motor, 65 octane	.04½	.04¾	.04½	.04¾
U. S. Motor, 67 octane	.05		.05	
U. S. Motor, 69 octane	.05¼		.05¼	
58-60 400 endpoint gasoline	.04½	.05	.04¼	.05

KEROSENE

GULF COAST—				
41-43 prime white	.04	.04¼	.04	
41 water white	.04¼	.04½	.04¼	
LOS ANGELES, CALIF.—				
41-43 water white	.03¾	.04¼	.03¾	.04¼

LUBRICANTS

NEW YORK (f.a.s. in bbls.)—		
600 Warren E	.23	.23
600 S.R. unfiltered	.19¼	.19¼
650 S.R. unfiltered	.21½	.21½
600 flash S.R.	.22½	.22½
630 flash S.R.	.27½	.27½
Bright stock, No. 8 color	.29	.29
Bright stock, No. 6½ color dil.	.28½	.28½

NEUTRALS

NEW YORK—Pale Engine Oil, Bulk (vis. at 100)—		
230-3¾	.10¾	.09¾
180-3¼	.10½	.09½
100-2¼	.06	.05
Red Engine Oil, Bulk (vis. at 100):		
300-6½	.10½	.09½
250-6	.09½	.08½
200-6	.08¾	.07¾

PARAFFIN WAX (Fully Refined)

NEW YORK (prices per pound)—		
123-125 a.m.p.	.0320	.03125
125-127 a.m.p.	.0340	.0325
130-132 a.m.p.	.0390	.0375
133-135 a.m.p.	.0430	.0425
135-137 a.m.p.	.0460	.0450

Crude Oil Prices

Oklahoma, Kansas, North and East Central Texas

East Texas (see note)	$.75
East Texas (see note)	$.80
Corsicana (heavy) (June 17, 1933)*	.30
Other fields	(See gravity table)

Note—Effective July 6, Sinclair Prairie Oil Marketing Co. posted 75 cents; effective July 6, Empire Oil & Refining Co., 75 cents; effective July 7, Magnolia Petroleum Co., 75 cents; effective July 7, Panola Pipe Line Co., 75 cents; June 17, East Texas posted by Stanolind Crude Oil Purchasing Co., 50 cents; effective June 19, Texas Co., Tide Water Oil Co., Humble Oil & Refining Co., Gulf Pipe Line Co., 50 cents.

*Magnolia Petroleum Co.

West Texas

Crane, Upton, Crockett, Howard, Glasscock, Mitchell, Ector, Winkler and Pecos Counties (see note)	$.30
Lea County, N. Mex. (June 19, 1933)	.30
Toborg, Pecos County (June 20, 1933)*	.35
Jones and Fisher Counties	See gravity table

Note—Effective July 7, Magnolia Petroleum Co., 45 cents; June 19, Crane, Upton, etc., posted by the Texas Co., Magnolia Petroleum Co., Gulf Pipe Line Co., Humble Oil & Refining Co. Lea County, 30 cents, effective June 19, Texas Co. and other purchasers, 30 cents.

*Shell Petroleum Corp.

Gulf Coast

Grade A and Grade B specifications discontinued by leading buyers	See gravity table
Tomball (June 19, 1933)*	$ .65
Livingston (June 20, 1933)†	.50
Refugio light	(See gravity table) (Gulf Coast)*
Refugio heavy (June 19, 1933)*	.45
Markham and High Island	(See gravity table) (Gulf Coast)
Conroe	(See gravity table)*

*Humble Oil & Refining Co., Markham by Texas Co., and High Island by Yount Lee Oil Co. †Shell Petroleum Corp.

South Central and Southwest Texas

Darst Creek (June 19, 1933)	See note
Mirando (June 19, 1933)	See note
Luling (July 7, 1933)	$.50
Pettus (June 19, 1933)	.55
Salt Flat (June 19, 1933)	.40
Lytton Springs (July 7, 1933)	.60

(Continued on Page 30)

Crude Oil Gravity Table

	North Central and East Central Texas	Oklahoma, Kansas, North Central and East Central Texas	Oklahoma, Kansas, North Central and East Central Texas	North Louisiana and Arkansas	Gray County, Texas	Gray County, Texas	Gray County, Texas	Carson, Hutchinson and Moore Counties, Texas	Carson and Hutchinson Counties, Texas	Carson and Hutchinson Counties, Texas	Conroe, Texas	Salt Creek, Wyo.	Gulf Coast, Texas and Louisiana	Gulf Coast, Texas and Louisiana	Caddo, Louisiana	Homer, Louisiana	Haynesville, Louisiana	Sabine, DeSoto, Sarepta-Carterville, Louisiana	El Dorado, Arkansas
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Below 20	....	....	....	....	....	....	....	....	....	....	....	....	$0.32	$0.32	....	....	....	....	....
20-20.9	....	....	....	....	....	....	....	....	....	....	....	....	.34	.34	....	....	....	....	....
21-21.9	....	....	....	....	....	....	....	....	....	....	....	....	.36	.36	....	....	....	....	....
22-22.9	....	....	....	....	....	....	....	....	....	....	....	....	.38	.38	....	....	....	....	....
23-23.9	....	....	....	....	....	....	....	....	....	....	....	....	.40	.40	....	....	....	....	....
24-24.9	....	....	....	....	....	....	....	....	....	....	....	....	.42	.42	....	....	....	....	....
Below 25	....	$0.30	$0.43	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
25-25.9	....	.32	.45	....	....	....	....	....	....	....	....	....	.44	.44	....	....	....	....	....
26-26.9	....	.34	.47	....	....	....	....	....	....	....	....	....	.46	.46	....	....	....	....	....
27-27.9	....	.36	.49	....	....	....	....	....	....	....	....	....	.48	.48	....	....	....	....	....
28-28.9	....	.38	.51	....	....	....	....	....	....	....	....	....	.50	.50	....	....	....	....	....
Below 29	$0.28	....	....	$0.28	....	....	....	....	....	....	....	$0.38	....	....	$0.26	$0.32	$0.29	$0.35	$0.37
29-29.9	.30	.40	.53	.30	....	....	....	....	....	....	....	.40	.52	.52	.28	.34	.31	.37	.39
30-30.9	.32	.42	.55	.32	$0.45	....	....	$0.35	....	....	....	.42	.54	.54	.30	.36	.33	.39	.41
31-31.9	.34	.44	.57	.34	.47	....	....	.37	....	....	....	.44	.56	.55	.32	.38	.35	.41	.43
32-32.9	.36	.46	.59	.36	.49	....	....	.39	....	....	....	.46	.58	.56	.34	.40	.37	.43	.45
33-33.9	.38	.48	.61	.38	.51	....	....	.41	....	....	....	.48	.60	.57	.36	.42	.39	.45	.47
34-34.9	.40	.50	.63	.40	.53	....	....	.43	....	....	....	.50	.62	.58	.38	.44	.41	.47	.49
Below 35	....	....	....	....	....	$0.57	$0.34	....	$0.47	$0.29	....	....	....	....	....	....	....	....	....
35-35.9	.42	.52	.65	.42	.55	.59	.36	.45	.49	.31	$0.59	.52	....	.59	.40	.46	.43	.49	.51
36-36.9	.44	.54	.67	.44	.57	.61	.38	.47	.51	.33	.61	.54	....	.60	.42	.48	.45	.51	.53
37-37.9	.46	.56	.69	.46	.59	.63	.40	.49	.53	.35	.63	.56	....	.61	.44	.50	.47	.53	.55
38-38.9	.48	.58	.71	.48	.61	.65	.42	.51	.55	.37	.65	.58	....	.62	.46	.52	.49	.55	.57
39-39.9	.50	.60	.73	.50	.63	.67	.44	.53	.57	.39	.67	.60	....	.63	.48	.54	.51	.57	.59
40 and over	.52	.62	.75	.52	.65	.69	.46	.55	.59	.41	.69	.62	....	.64	.50	.56	.53	.59	.61

Column 1—Effective June 19, 1933, Humble Oil & Refining Co., Texas Co., Gulf Pipe Line Co.

Column 2—Effective July 6, Carter Oil Co., in Kansas and Oklahoma; Stanolind Crude Oil Purchasing Co. in Kansas, Oklahoma and North Central and East Central Texas; Tide Water Oil Co. in Oklahoma. July 8, Texas Co. in Oklahoma; Shell Petroleum Corp. in Kansas and Oklahoma; Mid-Continent Petroleum Corp., Rock Island Refining Co., H. F. Wilcox Oil & Gas Co., Champlin Refining Co., Bell Oil & Gas Co., Johnson Refining Co., Eason Oil Co., Deep Rock Oil Corp., Cushing Refining Co., Globe Refining Co., Yale Oil Corp., in Oklahoma. July 13, Gypsy Oil Co. in Kansas and Oklahoma.

Column 3—Effective July 7, Magnolia Petroleum Co. in Oklahoma and North Central and East Central Texas. July 11, Continental Oil Co. in Kansas, Oklahoma and North Texas. July 11, Kanotex Refining Co., White Eagle Oil Corp., Derby Oil & Refining Co., Sunflower Refining Co., Skelly Oil Co., Eldorado Refining Co., in Kansas; Empire Oil & Refining Co. in Kansas and Oklahoma; Sinclair Prairie Oil Marketing Co. in Kansas, Oklahoma, North Central and East Central Texas; Pure Oil Co. in Oklahoma; Philtex Oil Co. in Kansas and Oklahoma; National Refining Co. in Kansas and Oklahoma. July 12, Twin State Oil Co. in Oklahoma.

Column 4—Effective June 19, Texas Co., Gulf Refining Co., Louisiana Oil & Refining Co. Effective June 20, Magnolia Petroleum Co. Effective June 19, Stanolind Oil & Gas Co. in Pine Island district, Louisiana, and Marion County, Texas, posted below 29 gravity, 26 cents, with 2-cent spread upward to 40 gravity and over, 50 cents. For Standard Oil Co. of Louisiana prices see Columns 16 to 20.

Column 5—Effective July 11, Philtex Oil Co.

Column 6—Effective July 7, Magnolia Petroleum Co. Effective July 11, Sinclair Prairie Oil Marketing Co.

Column 7—Effective June 19, Humble Oil & Refining Co., Gulf Pipe Line Co. and Texas Co.

Column 8—Effective July 11, Philtex Oil Co.

Column 9—Effective July 7, Magnolia Petroleum Co. Effective July 11, Sinclair Prairie Oil Marketing Co.

Column 10—Effective June 19, Humble Oil & Refining Co., Gulf Refining Co. and Continental Oil Co.

Column 11—Effective June 19, Humble Oil & Refining Co. Effective June 22, Texas Co. and Tide Water Oil Co.

Column 13—Effective June 17, Stanolind Oil & Gas Co.

Column 12—Effective June 17, Sinclair Prairie Oil Marketing Co. Effective June 19, Humble Oil & Refining Co. and Gulf Pipe Line Co.

Column 14—Effective June 19, Texas Co. Effective June 20, Magnolia Petroleum Co. in Lockport, Louisiana, while in Cameron Meadows and Iowa, Louisiana, it posted below 30 gravity, 22 cents, with 2-cent differential upward to 34 and above at 52 cents.

Columns 15 to 19—Effective June 19, Standard Oil Co. of Louisiana.

(California Crude Oil Prices on Page 30)

TANK WAGON MARKETS

Quotations for gasoline and kerosene in United States, as furnished by the larger marketing concerns, include taxes

July 18, 1933

Taxes

The gasoline quotations given in the following tables include the 1½-cent Federal tax effective June 17, 1933, as well as state, county and city taxes. The gasoline quoted is the regular or standard grade. In most marketing areas a third or competitive grade is generally available at 1 or more cents per gallon under the service station price for the regular grade. Ethyl Gasolines are sold 2.5 to 3 cents above the service station price for the regular grade.

Southern District

STANDARD OIL CO (KENTUCKY)

	Gasoline			Kero.
	Tank wagon	Service station	Inc'lds tax	tank wagon
Atlanta Ga. ..	21.0	21.0	7.5	10.0
Augusta	21.0	21.0	7.5	9.0
Macon	20.0	20.0	7.5	13.0
Savannah	22.0	22.0	7.5	14.0
Birm'ham, Ala..	24.0	24.0	8.5	13.0
Mobile	22.0	22.0	8.5	8.0
Montgomery ...	25.0	25.0	8.5	14.0
Jackson, Miss..	21.0	21.0	7.5	11.0
Vicksburg	21.0	21.0	7.5	11.0
Jack'ville, Fla..	21.0	21.0	8.5	12.5
Miami	22.0	22.0	8.5	13.5
Pensacola	19.0	19.0	8.5	13.5
Tampa	22.0	22.0	8.5	12.5
Lexington, Ky.	21.0	21.0	6.5	10.0
Covington	20.0	20.0	6.5	11.5
Louisville	19.0	19.0	6.5	10.0
Paducah	21.0	21.0	6.5	9.0

In addition to the state tax of 4 cents on gasoline, Montgomery has city and county tax of 2 cents on gasoline and one-half cent on kerosene. Kerosene prices in Georgia include 1-cent tax. In Florida, an inspection fee of 0.125 cent; in Alabama, an inspection fee of one-half cent on kerosene and one-fortieth cent on gasoline. To Pensacola, Montgomery and Birmingham state taxes add 1-cent tax. To Mobile state tax add 1-cent city tax. Dealers receive discount of 3 cents off tank wagon price throughout territory.

Southwestern District

MAGNOLIA PETROLEUM CO.

	Gasoline			Kero.
	Tank wagon	Service station	Inc'lds tax	tank wagon
Dallas, Tex. ...	15.0	17.5	5.5	7.5
Fort Worth ...	15.0	17.5	5.5	7.5
Houston	15.0	17.5	5.5	8.0
El Paso	15.0	18.0	5.5	8.0
San Antonio ...	15.5	18.0	5.5	8.0
Texarkana ....*‡16.0		16.0	5.5	†11.0
Muskogee	15.5	17.0	5.5	7.0
Okla. City.	15.0	17.0	5.5	7.5
Tulsa	15.0	17.0	5.5	7.0
Ft. Smith, Ark..‡16.4		16.4	5.5	†9.0
Little Rock ...‡18.9		18.9	7.5	†10.0

*Less 2½ cents to dealers. †Less 2 cents to dealers. ‡Less 4½ cents to dealers.

Standard Oil Co. (Indiana)

	Gasoline			Kero.
	Tank wagon	Service station	Inc'lds tax	tank wagon
Chicago	15.6	15 6	4 5	8 5
Decatur, Ill. ...	16 0	16.0	4 5	9.0
E. St. Louis ...	16 3	16.3	4.5	8 3
Joliet	16 0	16 0	4.5	9.0
Peoria	16.0	16.0	4.5	9 0
Quincy	15.8	15 8	4 5	8.8
Davenport, Ia. .	16.1	16 1	4 5	9.1
Des Moines ...	16 1	16.1	4.5	9 1
Mason City ...	16 1	16 1	4 5	9.1
Sioux City	15.7	15 7	4.5	8 7
Duluth, Minn. .	16.7	16.7	4 5	9.3
Mankato	16.3	16.3	4.5	9.3
Minneapolis ...	16.4	16 4	4 5	9.3
LaCrosse, Wis.	17.8	17.8	5.3	9.8
Green Bay	17 2	17 2	5.5	9.2
Milwaukee	16 7	16.7	5.5	8.7
Madison	16 9	16 9	5.5	8.9
Detroit, Mich. .	16.5	16.5	4 5	9 5
Grand Rapids .	16.2	16 2	4 5	9 2
Saginaw	16.5	16.5	4 5	9.5
Evansville, Ind.	17.0	17 0	5 5	9.0
Indianapolis ...	17.2	17 2	5 5	9.2
South Bend ...	17.5	17.5	5 5	9.5
Fargo, N. Dak.	18.1	18 1	4 5	10 6
Huron, S. Dak.	18 2	18 2	5 5	9.4
Sioux Falls ...	17.9	17.9	5.5	10.1
K. C., Mo.* ...	15.2	15 2	4 5	7.7
Springfield* ...	15.1	15.1	4.5	8 1
St. Louis	14.2	14.2	4.0	7.7
St. Joseph* ...	14.8	14.8	4.5	7.3
Wichita, Kans.	14.1	14 1	4.5	7.1
Bartlesville, Ok.	15.0	18.0	5.5	8.3

*State tax 2 cents, 1-cent city tax and 1-cent Federal tax.

Effective June 1, 1933—Discounts off tank wagon price to consumers on 500 gallons or more per month in territory outside of Chicago metropolitan area: 2 cents on Ethyl and Red Crown gasolines, and 1 cent on Stanolind gasoline. One-half cent additional discount in Chicago division.

Effective July 1, 1933—Discounts on resellers authorized agent's agreement made off the service station price throughout the territory as follows: 2.5 cents on Red Crown Ethyl and Standard Red Crown gasolines, and 1.5 cents on Stanolind gasoline. Half of reduction from normal service station price shall be absorbed by reseller up to maximum of 1 cent on all grades.

Stanolex Furnace Oil in Chicago

Effective June 27, 1933, prices f.o.b. Chicago, tank wagon prices: No. 1 (36-40 lt. stw. zero), under 100 gallons, 7¾ cents; No. 2 (30-34 stw. zero), 7¼ cents; No. 3 (22-26 zero), 6¾ cents; No. 4 (12-16 zero), 6¾ cents. Viscosity of No. 4, 90-115 at 100° F.; No. 5, 6½ cents; for deliveries of 100 gallons or more deduct 1 cent.

Naphtha

	Tank	
	Wagon	Car
Oleum spirits	10.7	6.23
V.M.&P. naphtha	12.7	6.73
Cleaners' naphtha	13.0	9.23
Stanisol	13.0	9.23

Tank wagon prices f.o.b. Chicago, January 6, 1932. Each of above prices subject to discount of 1 cent per gallon for 150-gallon lots if covered by contracts.

Atlantic Coast District

(Effective June 28)

STANDARD OIL CO. (NEW JERSEY)

	Gasoline			Kero.
	Tank wagon	Service station	Inc'lds tax	tank wagon
Atl'tic City N.J.	17.7	18.7	4.5	11.2
Newark	17.0	18.0	4.5	8.5
Annapolis, Md..	18.3	19.3	5.5	9.0
Baltimore	17.8	18.8	5.5	8.0
Cumberland ...	19.3	20.3	5.5	11.7
Wash'g'n, D. C.	16.0	17.0	3.5	10.0
Danville, Va. ..	20.4	21.4	6.5	9.9
Norfolk	18.9	19.9	6.5	10.3
Petersburg	19.7	20.7	6.5	11.4
Richmond	19.3	20.3	6.5	10.7
Roanoke	20.5	21.5	6.5	11.0
Charlst'n, W.Va.	18.7	19.7	5.5	11.6
Parkersburg ..	18.0	19.0	5.5	10.2
Wheeling	18.7	19.7	5.5	11.2
Charlotte, N. C.	22.1	23.1	7.5	12.5
Hickory	22.4	23.4	7.5	12.7
Mt. Airy	22.4	23.4	7.5	12.8
Raleigh	21.9	22.9	7.5	12.3
Salisbury	22.2	23.2	7.5	12.6
Charleston, S.C.	19.9	20.9	7.5	10.3
Columbia	21.7	22.7	7.5	12.2
Spartanburg ..	22.1	23.1	7.5	12.5

Note—Dealer contracts for gasoline are written at 2½ cents over the posted tank car price. The posted tank car price is the sum of the tax and 7.5 cents subtracted from service station price. A 2-cent discount allowed for cash at all service stations. Kerosene 1 cent off tank wagon for 25 gallons or more under contract except New Jersey and Baltimore, Md.

New York and Part of New England District

STANDARD OIL CO. (NEW YORK)*

	Gasoline			Kero.
	Tank wagon	Service station	Inc'lds tax	tank wagon
Albany, N. Y. .	17.7	18.7	4 5	9.0
New York	17.2	18 2	4 5	8 0
Buffalo	17 9	18 9	4 5	9.0
Rochester	18.0	19 0	4.5	9.0
Syracuse	18 0	19.0	4.5	9.5
Boston, Mass. .	17 2	18 2	4 5	8.0
Augusta, Me. ..	18.7	19.7	5 5	9.0
Manch'tr, N. H.	19.4	20.4	8.5	8.9
Burlington, Vt..	20.0	21.0	5.5	8.5

*All service station prices subject to 2-cent discount for cash.

Central South District

STANDARD OIL CO. (LOUISIANA)

	Gasoline			Kero.
	Tank wagon	Service station	Inc'lds tax	tank wagon
N. Orleans, La.	18.8	19.8	*7.5	†11.0
Baton Rouge ..	18.0	19.0	6.5	†10.0
Alexandria	18.9	19.9	*7.5	†8.5
Lafayette	19.1	20.1	*7.5	†10.0
Lake Charles .	19.0	20.0	*7.5	†10.0
Shreveport	16.8	17.8	6.5	†11.0
Knoxville, Tenn.	22.7	23.7	8.5	12.5
Memphis	21.1	22.1	8.5	10.0
Chattanooga ..	22.4	23.4	8.5	10.0
Nashville	22.0	23.0	8.5	10.0
Bristol	22.6	23.6	8.5	13.0
Lt. Rock, Ark..	19.9	20.9	8.5	10.0

*Includes city tax of 1 cent. †Louisiana kerosene prices include 1-cent state tax. New Orleans kerosene price also includes 1-cent city tax.

Effective June 2, 1933, station price fixed at 7 cents above basic tank car price at key refining points in territory. Discount to cash customers 2 cents off station price. Commercial consumers for tank wagon delivery pay following amounts over tank car price basis yearly deliveries:

1,000 to 75,000 gallons	2.5
75,000 to 300,000 gallons	1.5
Over 300,000 gallons	1.0

Pennsylvania-Delaware and Part of New England

ATLANTIC REFINING CO.

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax	tank wagon
Pittsburgh, Pa.	15.0	16.0	4.5	9.0
Philadelphia ..	15.0	15.5	4.5	9.0
Scranton	15.0	16.0	4.5	9.0
Allentown	15.0	16.0	4.5	9.0
Altoona	15.0	16.0	4.5	9.5
Erie	15.0	16.0	4.5	9.5
Dover, Del. ...	15.0	16.0	4.5	9.0
Wilmington ...	15.0	16.0	4.5	9.0
Springf'd, Mass.	17.8	18.8	4.5	8.0
Worcester	17.7	18.7	4.5	8.0
Boston	17.2	18.2	4.5	8.0
Providence, R.I.	16.2	17.2	3.5	8.0
Hartford, Conn.	16.6	17.6	3.5	8.0
New Haven	16.4	17.4	3.5	8.0

Discount schedule effective November 1, 1933. In Delaware and Pennsylvania, 2 cents off station price on purchases of 2,000 gallons or more per month, in remainder of territory 1 cent. Wholesale discount 2½ cents per gallon on monthly deliveries of 20,000 to 100,000 gallons, 3 cents on 100,000 to 300,000 gallons, and 3½ cents on more than 300,000 gallons.

Pacific Coast Territory

STANDARD OIL CO. OF CALIFORNIA*

	Gasoline			Kero.
	Tank truck†	Posted retail	Incl'ds tax	tank wagon
Fresno, Calif. ..	17.5	20.0	4.5	14.0
San Francisco .	17.0	19.5	4.5	12.5
Los Angeles ...	16.0	18.5	4.5	12.5
Reno, Nev.	20.5	23.0	5.5	15.5
Portland, Ore...	20.0	22.5	5.5	13.5
Seattle, Wash...	20.0	22.5	6.5	13.5
Tacoma	20.0	22.5	6.5	13.5
Spokane	23.0	25 5	6.5	18.0
Phoenix, Ariz. .	17.5	20.0	6.5	‡16.0

*Retail prices posted by Standard Stations, Inc., a subsidiary.

†Above prices are at company's plant or depots as company does not operate stations. A 4-cent per gallon discount is given dealers and customers taking tank wagon lots except in Phoenix where the discount is 1 cent. ‡Includes 5-cent state tax.

Rocky Mountain District

CONTINENTAL OIL CO.

	Gasoline			Kero.
	Tank wagon	Service station	Inc'lds tax	tank wagon
Denver, Colo. ..	17.0	19.0	5.5	11.5
Pueblo	17.0	19.0	5.5	13.0
Grand Jnctn. ..	19.0	21.0	5.5	13.0
Casper, Wyo ..	18.0	20.0	5.5	10.5
Cheyenne	17.0	19.0	5.5	13.0
Butte, Mont. ..	21.5	23.5	5.5	17.5
Billings	23.0	25.0	6.5	16.0
Great Falls ...	23.0	25.0	6.5	17.5
Helena	23.0	25.0	6.5	17.5
Salt Lake, Utah	18.0	20.0	5.5	16.0
Albu'que, N. M.	18.0	20.5	*7.5	12.0
Boise, Idaho ..	22.0	24.0	6.5	18.0
Twin Falls	22.0	24.0	6.5	18.0

*One-cent city tax.

Effective June 1, 1933, dealers and lease and license accounts will receive 2½ cents discount on regular gasoline in Montana, Colorado, Wyoming, Utah and Idaho.

Ohio

STANDARD OIL CO. (OHIO)*

	Gasoline			Kero.
	Tank wagon	Service station	Inc'lds tax	tank wagon
Ohio points ...	17.5	20.5	5.5	11.5

*Two-cent discount allowed for cash.

Nebraska

STANDARD OIL CO. (NEBRASKA)

	Gasoline			Kero.
	Tank wagon	Service station	Inc'lds tax	tank wagon
Omaha	16.8	17.8	5.5	9.8
McCook	18.3	19.3	5.5	11.3
Norfolk	17.3	18.3	6.5	10.3
N. Platte	18.3	19.3	5.5	11.0
Scottsbluff	18.3	19.3	5.5	10.3

Discount to dealers and AAA commissions: From service station price: Red Crown Ethyl and Standard Red Crown gasoline, 2½ cents. Rentals under lease and agents' agreement, one-half cent per gallon additional Discount to consumers under contracts (large consumers under contract and governmental units): On tank wagon deliveries of gasoline on monthly purchases of 500 gallons, or yearly purchases of 6,000 gallons, from the service station price: Red Crown Ethyl and Standard Red Crown gasoline, 2 cents per gallon.

Canada*

IMPERIAL OIL, LTD.

Imperial 3-Star Gasoline

	Gasoline			Kero.
	Tank wagon	Service station	Inc'lds tax	tank wagon
Hamilton, Ont..	22.5	25.5	6.0	15.5
Toronto, Ont. .	22.5	25.5	6.0	15.5
Brandon, Man...	29.0	32.5	7.0	17.5
Winnipeg, Man.	26.0	29.5	7.0	17.5
Regina, Sask. .	29.0	33.0	6.0	21.5
Saskatoon, Sask.	31.0	35.0	6.0	23.5
Edmonton, Alta.	29.5	33.5	6.0	23.5
Calgary, Alta..	26.0	30.0	6.0	19.0
Vancouver, B.C.	26.5	29.5	7.0	22.5
Montreal, Que. .	22.0	25.0	6.0	15.0
St. Johns, N.B. .	24.5	28.5	7.0	20.5
Halifax, N.S. ..	23.5	27.5	6.0	20.5

*Imperial gallon used in Canada.

TANK WAGON CHANGES

(Regular Grade Only)

Standard Oil Co. of Louisiana advanced the gasoline tank wagon and station prices one-half cent throughout its territory June 28, and on July 14 added another one-half cent to the advance in Tennessee.

Standard Oil Co. of California reduced the gasoline tank wagon and station prices in Phoenix, Ariz., 1½ cents on July 10.

Standard Oil Co. (Nebraska) advanced the kerosene tank wagon 1 cent at normal points and where prices were below normal they were advanced to the normal level.

Atlantic Refining Co. advanced the gasoline tank wagon and station price two-tenths cent in Providence, R. I., July 8.

Standard Oil Co. of Ohio advanced the gasoline tank wagon and station prices one-half cent July 13.

Magnolia Petroleum Co. reduced the gasoline tank wagon and station prices in Little Rock, Ark., to 18.9 cents each on July 14. On the same date the kerosene price was advanced to 7 cents in both Tulsa and Muskogee, Okla.

CRUDE OIL PRICE CHANGES

There were some readjustments in crude oil prices in the past week, but the Humble Oil & Refining Co., Texas Co. and Gulf Pipe Line Co. were still paying a top price of 52 cents for crude in North Texas, Central Texas and East Central Texas on Tuesday, July 18. There were two price schedules in Oklahoma and Kansas—that first posted by the Magnolia Petroleum Co., with a top of 75 cents, which applies also in North Central and East Central Texas, and the Carter Oil Co.'s schedule which has a top price of 62 cents. The Sinclair Crude Oil Purchasing Co. adopted the Magnolia schedule and the Stanolind Crude Oil Purchasing Co. the Carter schedule. Other companies were divided as to which scale of prices they chose to pay, all of which is set forth in the gravity table of prices on Page 21. There were no changes in Louisiana, Arkansas, Gulf Coast, Southwest Texas or West Texas over last week's prices.

The Pennsylvania grade oil fields of New York, Pennsylvania, southeastern Ohio and West Virginia were given a 15-cent increase by the South Penn Oil Co., Tide Water Pipe Co., Pure Oil Co. and other buyers, effective July 17. This gives Allegany-Bradford district a price of $1.85 per barrel with the more southerly fields ranging from $1.32 to $1.77. On July 18, Corning, Ohio, oil was advanced to 90 cents.

The Pure Oil Co. on July 17 raised Midland, Mich., crude to 90 cents per barrel, a 15-cent increase.

On July 11 the Continental Oil Co. advanced Artesia and Jackson, N. Mex., crudes to 45 cents, a 10-cent increase.

On July 11 the Philtex Oil Co. reduced its Panhandle prices of July 6 8 cents per barrel on the upper grades. The new schedule in Gray County starts at below 31 degrees, 45 cents, with 2 cents added for each degree starting at 31-31.9, 47

(Continued on Page 31)

NATURAL GASOLINE MANUFACTURE

Refiners Buy 12.7 Per Cent Less Natural First 5 Months

Production, stocks, shipments and exports of natural gasoline in the Mid-Continent showed marked declines during the first five months of this year compared to a similar period in 1932, according to an analysis of the Bureau of Mines statistics made by the Western Petroleum Refiners Association.

Those refiners who depend upon the Mid-Continent gasoline plants for their needs received 12.7 per cent less into their plants during the period while stocks at refiners declined 17.9 per cent. Production at the Mid-Continent gasoline plants decreased 13 per cent while stocks increased 15.5 per cent. Inland Texas is the only group of refiners that increased their demands for natural gasoline for the period.

Following is a tabulation and analysis of pertinent figures:

MID-CONTINENT NATURAL GASOLINE STATISTICS—FIRST FIVE MONTHS 1932 AND 1933

	First 5 mos. 1932	First 5 mos. 1933	Percentage change
Stocks at Natural Gasoline Plants, May 31			
Oklahoma	16,993	14,987	—11.9
Kansas	1,433	1,111	—22.5
Texas	11,698	9,389	—19.7
Louisiana	1,198	1,151	— 3.9
Arkansas	335	120	—64.2
Total	31,657	26,758	—15.5
Production at Natural Gasoline Plants			
Oklahoma City	35,400	31,700	—10.5
Osage County	20,500	16,900	—17.6
Seminole	52,000	38,500	—26.0
Rest of state	61,600	52,900	—14.1
Oklahoma total	169,500	140,000	—17.4
Kansas total	11,700	10,000	—14.5
Panhandle	74,300	68,800	— 7.4
North Texas	11,100	8,700	—21.6
West Central	38,200	34,100	—10.7
Rest of state	37,500	30,800	+12.0
Texas total	161,100	142,400	— 5.8
Louisiana total	21,800	16,600	—23.9
Arkansas total	8,700	6,500	—25.3
Total	362,800	315,500	—13.0
Shipments from Natural Gasoline Plants			
Oklahoma	161,292	130,724	—19.0
Kansas	10,695	9,299	—13.1
Texas	145,467	139,399	— 4.1
Louisiana	21,840	16,164	—26.0
Arkansas	8,567	6,544	—23.6
Total	347,801	302,130	—13.1
Stocks at Local Refineries, May 31			
Okla. and Kans.	1,050	840	—20.0
Inland Texas	294	210	—28.6
Coastal Texas	13,062	10,794	—17.4
N. La. and Ark.	84	126	+50.0
Coastal Louisiana	84	None	—100.0
Total	14,574	11,970	—17.9
Used by Local Refiners			
Okla. and Kans.	75,348	75,810	+ 0.6
Inland Texas	46,662	53,938	+15.6
Coastal Texas	56,742	42,924	—24.4
N. La. and Ark.	15,498	7,350	—52.6
Coastal Louisiana	17,724	4,620	—73.9
Total	211,974	184,632	—12.9
Local Refinery Demand (Receipts)			
Okla. and Kans.	75,180	75,736	+ 0.7
Inland Texas	46,746	53,970	+15.5
Coastal Texas	58,338	44,520	—23.7
N. La. and Ark.	15,330	7,308	—52.3
Coastal Louisiana	17,724	4,620	—73.9
Total	213,318	186,144	—12.7
Excess Production Over Local Refinery Demand			
Okla. and Kans.	106,020	74,274	—29.9
Texas	46,016	43,916	— 4.6
La. and Ark.	2,554	11,172	.....
Total	149,432	129,356	—13.5

CANADA IMPORTS MORE NATURAL

Natural casinghead gasoline imported into Canada in April totaled 2,663,964 gallons valued at $135,303. The March imports were recorded at 2,521,403 gallons at $167,183. Importations of gasoline lighter than .8235 specific gravity reached a total of 1,804,518 gallons appraised at $130,324 as against 1,607,920 gallons worth $123,662 in March.

Chart Aids Plant Operator to Properly Adjust Circulation Through Absorber

By W. A. STOVER

The accompanying oil absorption chart was designed especially to assist the plant operator in determining the correct oil circulation for absorbers operating under conditions of varying temperature, pressure, gas volume, etc.

The chart is based on the absorption equation by Alois Kremser[1] and employs the equilibrium constant K, developed by Doctor Brown and Mott Soulders, Jr.,[2] to correct for the deviation of the hydrocarbons from Raoult's law and the ideal gas laws.

In order to use the chart for operating purposes a butane factor for the plant must first be established. This factor should be determined at a time when the plant is operating normally. After the butane factor has been determined, changes in oil circulation required to compensate for changes in other operating conditions, such as operating pressure, gas volume, etc., may be readily obtained by use of the chart.

The scale G for gas quantity may be multiplied or divided by 10, 100, etc., provided the scale H for oil quantities is mulitplied or divided by the same factor. In the example shown, if the gas quantity were 300,000 cubic feet per day which is equivalent to 3,000,000/10, the oil circulation would be 42.5/10 = 4.25 G.P.M.

The scale A and B take care of the gravity and molecular weight of the lean absorption oil. When the exact molecular weight is unknown a molecular weight corresponding to the A.P.I. gravity of the oil as shown in Table 1 may be used.

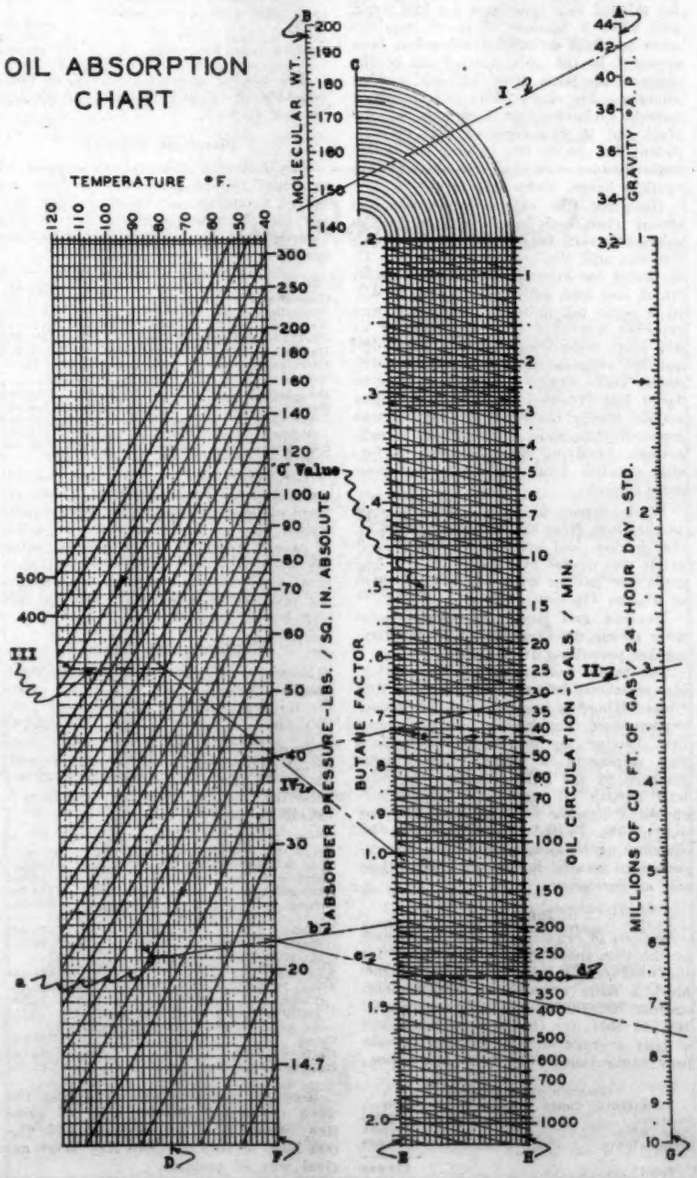

OIL ABSORPTION CHART
TEMPERATURE °F.
MOLECULAR WT.
GRAVITY °A.P.I.
G Value
ABSORBER PRESSURE - LBS. / SQ. IN. ABSOLUTE
BUTANE FACTOR
OIL CIRCULATION - GALS. / MIN.
MILLIONS OF CU FT. OF GAS / 24-HOUR DAY - STD.

TABLE 1

°A.P.I.	M.W.
32	193
34	183
36	173
38	164
40	155
42	146
44	136

Values on A and B scales when connected by the straight line I result in a value on scale C. This value is projected by the curved lines to the lower section of the chart and should be marked so it may be easily identified, as this value is assumed to remain constant.

The formula from which the chart was constructed is as follows:

$$Q = \frac{K A G M}{3.156\ d\ 1{,}440}$$

Where:

K = equilibrium constant.

A = absorption factor.

G = gas volume in thousands of cubic feet/day at 60° and 14.7 pounds/square inch absolute.

d = specific gravity of oil at 60° F.

Q = oil circulation in gallons per minute.

M = molecular weight of lean oil.

The use of the chart can best be explained by a few examples.

Example 1. Find the absorption factor for a plant having the following normal operating conditions:

Oil circulation, gals./min.	42.5
Gas volume, cu. ft./day	3,000,000
Absorber pressure, lbs./sq. in ab.	250
Temp. oil leaving absorber, °F.	115
Molecular weight of oil	146
Gravity, of oil, °A.P.I.	42

Solution. (1) Connect values on scales A and B with straight line I to get value C. (2) Project value C to chart below and mark with pencil. (3) Enter scale H at oil quantity, go left to value C, then follow sloping guide line to scale E. (4) Connect point on scale E with gas quantity on scale G and extend line II across scale F. (5) Enter pressure scale at 250-pound line and follow curved line downward until it intersects 115° temperature line. (6) From intersection on temperature line draw line III to intersect scale D. (7) Connect intersections on scales D and F and extend line IV across scale E, which shows the butane factor to be 1.0.

Example 2. What oil circulation is required for a plant to operate as follows?:

Gas volume, cu. ft./day	7,500,000
Absorber pressure, lbs./sq. in. abs.	50
Temp. oil leaving absorber	87
Mol. weight of oil	146
Gravity of oil, °A.P.I.	42
Absorption factor	1.2

Solution. Follow the lines a, b, c, d and read answer on scale H which shows the oil circulation to be 305 gallons/min.

The oil to gas ratio in gallons of oil per 1,000 cubic feet of gas may be obtained for any condition within the chart range in a manner similar to Example 2 by using a gas quantity of 1,440,000 cubic feet per day, as indicated by the arrow on scale G, and reading the oil quantity on scale H in gallons per 1,000 cubic feet instead of gallons per minute.

REFERENCES

[1]The Oil and Gas Journal, May 22, 1930.

[2]The Oil and Gas Journal, May 26, 1932.

Note.—Blue printed copies of the Oil Absorption Chart with instructions, on 8½x11 sheets, may be obtained for a nominal charge by addressing W. A. Stover, Box 1781, Tulsa.

East Coast Gasoline Holding Firm; Neutral Oils Up on All Grades for First Time in Year

By A. E. MOCKLER
New York Bureau, The Oil and Gas Journal

NEW YORK, July 17.—Continued firmness characterized the gasoline situation in all divisions of the East Coast market during the past week, and while no further price changes materialized, the trade was "standing by" in anticipation of an early resumption of the upward move. Featuring the market in this area was an increase of 1 cent per gallon on red and pale engine oils, this being the first price change on these products for fully a year. The increase reflected higher production costs incidental to recent advances in crude prices, and reflects some of the firmness which has characterized markets for other lubricating oils during the past few months. Paraffin wax quotations were also higher, both for domestic shipment and for export.

Refinery Gasoline

With the price advance in refinery motor fuels halted in this territory, the recently advanced basis of quotations in the East Coast area had a thorough testing out during the past week, and stood up well under the ordeal. Prices were unchanged from the previous week's levels at principal distributing points in the territory last week, but spot business was being booked firm at prevailing posted figures, and price cutting was a rarity.

An indication that a further advance in motor fuel prices in this area is in prospect is seen in the refusal of refiners to accept business for forward delivery on the basis of present posted prices. The Gulf cargo market, which is the basis for tank car and tank wagon quotations in the East, has advanced further since the most recent increase in East Coast quotations, and this state of affairs has led to a general belief that an early upward revision will be made locally.

Although refiners are concentrating sales on their first-grade product, the recent increase in retail quotations has had the tendency to slightly increase the demand for second grades, and a larger gallonage of the latter products is moving in some parts of the area.

Posted prices for U. S. Motor gasoline of 58 to 62 octane number now range from 5.75 to 5.90 cents per gallon at New York, with the high-test product at 6 to 6.15 cents at refineries or terminals. Boston quotations range from 5.95 cents for the ordinary, or "unbranded" grade of motor fuel, up to 6.20 to 6.30 cents per gallon for gasoline of 65 octane number and up. At Philadelphia the market is posted at 5½ to 5¾ cents for unbranded and 5¾ to 6 cents for the high test product. Baltimore quotations are held at 5½ to 5¾ cents for the unbranded product, and 5¾ to 6 cents for gasoline of 65 octane rating and up, while the Charleston market remains unchanged at 5¼ cents for unbranded and 5¾ to 6 cents for the regular grades.

Tank Wagon Gasoline

Marketers are firmly adhering to posted prices in most parts of the territory, and the market position is unusually strong, with the trade on the lookout for a further increase in posted prices. Prices were unchanged last week, however.

Bunker Oil

The advance of 10 cents per barrel which was initiated at a number of domestic ports during the previous week has been extended to other domestic ports, to Mexico, the Canal Zone and the West Indies, the advance being uniform with the exception of St. Thomas, where the increase was 20 cents per barrel. Canadian ports have not yet been affected, this probably being due to the exchange situation.

Revised quotations at domestic ports, other than those outlined in last week's Oil and Gas Journal, are as follows: Philadelphia, 85 cents; Savannah, 80 cents; Jacksonville, 80 cents; Portland, Me., 95 cents; Providence, 85 cents; Beaumont, Baytown, Texas City and Galveston, 70 cents; Port Tampa, 80 cents; Westwego, Harbor Island, Ingleside, Magpetco, Houston, Sabine and Port Aransas, 70 cents per barrel.

In the West Indies prices have been advanced to the following levels: San Juan and Ponce, Porto Rico, 90 cents per barrel; St. Thomas, $1 per barrel; Bermuda, $2; Curacoa, 70 cents; Aruba, 80 cents; Trinidad, 80 cents, and Havana, $1.10. At the Panama Canal Zone, quotations have been advanced to 90 cents per barrel at both Cristobal and Balboa.

Diesel Oil

As has been the case with bunker "C" oil, Diesel oil quotations have been advanced 10 cents per barrel at all the points enumerated in the preceding paragraph, with the exception of a few ports where only bunker "C" oil is carried. At St. Thomas, the advance on Diesel oil was 20 cents a barrel, bringing the quotation at that terminal up to $1.65 per barrel.

With industrial activity quickening, there has been an improved demand for Diesel oil for shore delivery. The market for tank car shipments has not yet been advanced, and refiners continue to post 4 cents per gallon for 26-30 gravity oil, f.o.b. refineries or terminals.

Gas Oil

Sellers are adhering to the posted price basis of 4 cents per gallon for 28 gravity minimum oil in tank car lots at refineries or terminals, and report a continued fair movement against contracts, although spot sales remain relatively light.

The posted price for 41-43 water white in tank car lots remained unchanged at 5 to 5¼ cents.

The tank wagon kerosene market was without quotable change during the week.

Furnace Oil

A quiet market was reported for all grades of domestic heating oil.

Paraffin Wax

Further strength developed in the market for refined paraffin wax during the past week, and the price trend continued upward. Spot 125-127 a.m.p. was quoted at 3.55 cents per pound, an increase of one-quarter cent for the week, with other grades unchanged, but showing an advancing tendency. Sellers reported that there had been a pronounced improvement in buying interest during the week, and a large tonnage was booked for August shipment.

In the export division of the paraffin wax market, the price situation was likewise bullish, and quotations were fractionally higher on all grades, revised prices being as follows: 123-125 a.m.p., 3.20 cents per pound; 125-127 a.m.p., 3.40 cents; 130-132 a.m.p., 3.90 cents per pound; 133-135 a.m.p., 4.30 cents, and 135-137 a.m.p., 4.60 cents per pound. Export buying was also along broader lines during the period.

Lubs

Featuring this division of the market was a blanket increase of 1 cent per gallon on red and pale oils, this being the first change in local quotations on these oils for virtually a full year. The revision brings the market to the following levels: Pale engine oils, 230-3¾, 10¾ cents per gallon; 180-3¼, 10½ cents; 100-2¼, 6 cents; red engine oil, 300-6½, 10½ cents per gallon; 250-6, 9½ cents; and 200-6, 8¾ cents, all in bulk, f.a.s. New York harbor.

Cylinder oils and bright stocks remained steady at the advances recently made effective, and refiners reported that there was more business reaching them for prompt and nearby shipment. Refiners are talking further increases on these oils, which have shown a substantial advance during the past few months.

Exports and Imports of Refined Products; Receipts of California Oil in the East

NEW YORK, July 17.—Price differences in field quotations for East Texas crude tended to keep the export market for this oil in a quiet position last week, and while a number of cargo inquiries were pending, no actual sales had been reported in the open market up to the close of the week. The "official" market quotation for export was 97½ cents a barrel, f.o.b. loading terminals at the Gulf, but it was reported that oil sufficient for one or two cargoes for immediate loading was available at 5 to 7½ cents a barrel under this level.

Gasoline for export appeared less strong than had been the case in the previous week. While 4½ cents per gallon was still the inside quotation for U. S. Motor for export, 64-66 375 endpoint, which had been previously posted at 4⅞ to 5 cents per gallon at the Gulf, was reported available in some quantity at 4¾ cents. Sellers continued to quote 400 and 390 endpoint gasoline nominal at 4¾ cents. There were no sales of gasoline in cargo lots reported booked in the open market during the week, although it was reported that some intercompany transactions, involving the movement of foreign gasoline from the Gulf, had been consummated.

While export kerosene continued dull at the Gulf, from the standpoint of sales, the market had stiffened a little, and prime was quoted at a range of 4 to 4¼ cents per gallon, with water white held at 4¼ to 4½ cents.

Mexican and South American crudes were strong, in sympathy with the firm market prevailing at the Gulf.

The recent restoration of more amicable relations between Russia and the United Kingdom has deprived Gulf Coast exporters of considerable potential gasoline. During the period in which Russian shipments to England were under embargo by the latter country, the Soviet's British oil marketing agency purchased a number of cargoes of gasoline out of the United States Gulf for its distributing requirements, but is now expected to receive its supplies from Russia, as heretofore.

Imports

Imports of crude and refined petroleum at the principal United States ports for the week ended July 8 totaled 1,045,000 bbls., a daily average of 149,286 bbls., against 768,000 bbls., a daily average of 109,714 bbls., for the previous week, and a daily average of 102,786 bbls. for the four weeks ended July 8. Details follow:

(Barrels of 42 gallons)

At Atlantic Coast ports—	Bbls.
Boston	76,000
New York	628,000
Philadelphia	275,000
Total	979,000
Daily average	139,857
At Gulf Coast ports—	
All ports	66,000
Daily average	9,429
At all United States ports—	
Total	1,045,000
Daily average	149,286
Daily average four weeks	102,786

The week's imports consisted of 692,000 bbls. of crude petroleum and 353,000 bbls. of fuel oil.

Petroleum Exports

The following table shows exports of principal refined petroleum products reported from the port of New York during the three weeks ended July 8 (all figures in gallons unless otherwise noted):

	Week ended July 8	Week ended July 1	Week ended June 24
Gasoline	28,000	90,000	277,000
Naphtha	595,000	4,000	320,000
Kerosene	268,000	15,000	110,000
Fuel and gas oil	20,000	5,000	275,000
Lub oil	1,270,000	661,000	3,495,000
Petroleum, ref.	128,000	128,000	532,000
	Pounds		
Petrolatum	6,000	13,000	80,000
Paraffin wax	1,775,000	1,500,000	1,346,000
Refined	275,000	.....	221,000
Scale	50,000	185,000	516,000
Lub grease	661,000	475,000	745,000

The export outlook has shown considerable improvement in East Coast refined oil markets during the past several weeks, the continued fall of the dollar in world exchange markets cheapening the price of American petroleum in principal world consuming countries, and being reflected in a marked revival in foreign buying interest.

California Oil Receipts

Receipts of California refined products at Atlantic and Gulf Coast ports for the week ended July 8 totaled 736,000 bbls., a daily average of 105,143 bbls., against 81,000 bbls., a daily average of 11,571 bbls., during the preceding week, and a daily average of 42,964 bbls. for the four weeks ended July 8. Details follow:

(Barrels of 42 gallons)

At Atlantic Coast ports—	Bbls.
Baltimore	73,666
Philadelphia	344,000
Others	258,000
Total	675,666
Daily average	96,429
At Gulf Coast ports—	
Key West	61,000
Total	61,000
Daily average	8,714
At Atlantic and Gulf Coast ports—	
Total	736,000
Daily average	105,142
Daily average four weeks	42,964

Receipts of California oil during the week comprised 595,000 bbls. of gasoline, 80,000 bbls. of kerosene, and 61,000 bbls. of fuel oil. The Key West arrival was of gasoline.

Chicago District Marketers Look for Beginning of Stabilization of the Industry This Week

By R. C. CONINE
Chicago Bureau, The Oil and Gas Journal

CHICAGO, July 17. — Although marketers who have money to invest in gasoline are still finding bargain material in sufficient quantities to permit them the luxury of visualizing "fat profits tomorrow," the conviction is general in Chicago district oil trade circles that this week will mark the real beginning of stabilization in the oil industry, and fair profits for all. President Roosevelt's proclamation banning "hot oil" or its products from interstate commerce has put an entirely new complexion on this latest upward swing of the refined products markets. The illegal oil ban has had the effect of removing the certainty of relapse which has greeted all past betterments. A less spectacular, and no less effective factor reinforcing the refined markets has been the operation of the policies recommended in marketing by Allan Jackson, vice president of Standard Oil Co. (Indiana), in his 10-point program for eliminating cut-throat and uneconomic practices.

Although crude oil producers, refiners and marketers were able to agree on the causes of their troubles and the remedies, developments of the past few weeks have shown that there is a considerable diversity of opinion among oil company officials as to prices which will assure a steady and well-founded improvement. Such an improvement, it is pointed out, will make it possible to add to the payrolls, one of the major objectives of the National Industrial Recovery Act.

Influence of Q Gasolines

In the light of the heightened optimism in Chicago district oil trade circles, the advances noted in the gasoline markets Monday are small. There is an inclination to name premiums of a cent or more on gasolines falling in the "regular" bracket, but the fact is that too many marketers are conscious of the ease and small cost of producing premium grade motor fuel by means of the Q tetraethyl lead compound. In the jobber license agreement of Ethyl Gasoline Corp., Form Jobber Q, there is no indication of discrimination, clause (a) stating: "Licensor hereby licenses Licensee to sell and deliver in the territory of the United States (stated county, etc.), and not elsewhere, the improved motor fuel, defined in the aforementioned patents, in quantities less than tank car lots only, and only to users and consumers thereof or to retail dealers for delivery directly by said dealers to users and consumers thereof, on condition, however, that the licensee shall have purchased said improved motor fuel from a manufacturer holding a license from the licensor under said patents." The licensee agrees to supply to the licensor upon written request a list, revised monthly, of all points at which motor fuel delivered under this license is sold.

Await Octane Developments

With most of the major and semimajor oil companies, including the Indiana Standard company, selling the regular grade gasoline under the Q contract (over 50 companies, according to the Ethyl Gasoline Corp.) regular gasolines are expected to standardize at around 70 octane number. There is no indication that the service station and tank wagon spread between the regular and third grade will be increased from 1.5 cents. Several majors are planning to increase the anti-knock rating of the third grade to a minimum of 60 octane. These developments are causing some confusion among marketers basing tank car prices on the octane brackets now generally published. It is pointed out that if the policy of basing retail markets on the Group 3, tank car markets is continued, a spread of 1.5 cents between the "third grade" and "regular" grade in the retail markets is increased 1 cent, from the standpoint of the wholesaler, by the lower Q.D.A. applying on the third grade. On today's Chicago price at the service station on third grade gasoline, 14.1 cents, the net back to the Oklahoma refiner would be 5.16 cents, after deducting 4.5 cents for state and Federal taxes, 2.44 cents for freight, and 2 cents for dealer's commission and rental. The price on the regular grade gasoline in Chicago is 15.6 cents, and the net back to the Oklahoma refiner would be 5.66 cents, after deducting taxes, freight and 3-cent commission and rental. The refiner, therefore, realizes half a cent more on his "regular" than on his third grade gasoline. While there is considerable talk in the trade of another increase shortly in the service station and tank wagon markets, it is indicated that these advances must wait for a boost of half a cent or more in the tank car postings. It is interesting to note that even with today's retail prices, which have moved up 3 cents in a comparatively brief space, there is practically none of the price slashing which has started more than one destructive "war."

More Blending Naphtha Offered

Blending naphthas, which have figured nominally in these markets for several months, are now being offered freely with few takers. Natural gasolines suitable for the majority of small handlers who are seeking to cut their costs offer little or no price advantage over U. S. Motor gasoline. In fact, as far as this district is concerned, distributors who purchased natural gasoline have been left holding the sack. Sellers are asking 3⅞ cents on 50-52 blending naphtha.

Gasolines Advance Eighth

Gasoline tank car prices Monday had advanced an eighth of a cent over quotations of a week ago as follows: U. S. Motor gasolines, regular grade, 4½ cents to 4¾ cents; premium grade, 4⅝ cents to 4⅞ cents; third grade, 3¾ cents to 4 cents. Lower endpoint gasolines: 60-62 400 endpoint gasoline, 4 cents to 4⅛ cents; 64-66 375 endpoint gasoline, 4¼ cents to 4⅜ cents; 68-70 360 endpoint gasoline, 4⅜ to 4½ cents; aviation fighting grade (no octane specifications) 4½ cents to 4¾ cents. These prices appear firm and are expected to continue upward strongly this week.

Special Naphthas Advance Strongly

Competitive conditions in the special naphtha markets have been more turbulent than in other refined products markets. Monday, however, found the situation clearing rapidly, both as a result of better feeling in the oil industry and a more favorable attitude on the part of buyers. A survey reveals that practically all sellers of special naphthas are able to obtain higher prices with their postings falling well within the following advanced ranges for this week: Cleaners naphtha, 6 to 6¼ cents, up a quarter of a cent; lacquer diluent, 180-250, 7½ to 8 cents, up a half cent; lacquer diluent, 140-200, 8 to 8½ cents, up a quarter of a cent on the high; rubber solvent continues unchanged at 5¾ to 6 cents; Stoddard solvent, advanced a quarter of a cent to a range of 5½ to 5¾ cents; petroleum thinner continues in competitive difficulties without change at 5 to 5¼ cents; V.M.&P. naphtha advanced a quarter of a cent to a range of 5¾ to 6 cents; petroleum spirits, although one of the heaviest paint items and long the center of price shading, joined in the advance moving up a quarter of a cent to a range of 4¾ to 5 cents. While recent advances in the special naphtha tank car markets have proven premature and have resulted in prompt relapses, sellers now believe the new prices are resting on a firm foundation and will advance with improvements in the crude oil markets.

Kerosenes Inactive

While most of the distillates and residual fuels Monday were maintaining a strong position, the kerosene tank car markets which had long figured as the one bright spot were sinking farther into the background as refiners seeking to move these materials encountered an almost complete lack of interest among their prospects. The larger refiners are holding their kerosenes off the open markets. A few cars of 41-43 water white kerosene have been offered at subnormal prices. Outside of these distress cars prices named on this material range from 2⅝ to 2¾ cents, and on the 42-44 water white kerosene, from 2¾ to 2⅞ cents.

Distillates and Residuals Strong

Distillates and fuel oil tank car markets Monday were unchanged pricewise. Industrial fuels are meeting an improvement in demand estimated as high as 50 per cent in some quarters. The zero materials are exceedingly scarce. Fuel oils offered by Chicago district refiners have unusually good viscosity characteristics and are unaffected by outside materials offered at considerably lower prices. At least one major refiner feels that he is sold up with contract commitments, and others name prices which indicate that they are sure of practically all the business they feel they can handle.

Refined Wax

Domestic fully refined wax markets continue strong and unchanged in price. Principal marketers, however, announced a quarter of a cent advance July 13, in the export markets.

Do You Remember?

From The Oil and Gas Journal Files

25 Years Ago

July 18, 1908

The discovery well in the Goose Creek Field, Texas, is making a constantly increasing quantity of water and the oil has gone red.

Attorney General West of Oklahoma, hostile to the Prairie Oil & Gas Co. because it will not take out a charter in Oklahoma, has asked that a receiver be appointed and that the company's affairs be taken over by the State. Governor Haskell opposes Attorney West's policy, but the attorney general defies him.

The frequency with which lightning strikes storage tanks in the Glenn Pool in Oklahoma, leads F. A. Leovy, manager of the Gulf Pipe Line Co., to think that lightning strikes more frequently in a flush oil field because of the generation of so much gas, which floats off in the air and makes it more subject to electrical disturbance. It is believed also that all-steel tanks would aid in preventing oil tank fires.

20 Years Ago

July 24, 1913

Oklahoma and Kansas oil is 98 cents per barrel and Corsicana light oil, Henrietta and Electra oil, in Texas, are posted at $1.

Oil royalties on the Texas Gulf Coast are not uniform. Royalties run all the way from 12½ per cent up to 60 per cent. In the old gusher days the landowner became accustomed to extravagant concessions on the part of too eager oil men, and they have balked at any reduction of the boom day royalty scale.

The ouster suit against the Magnolia Petroleum Co. and others instituted by the attorney general of Texas has been compromised. Instead of $100,000,000 which the Texas politicians hoped to "soak the Standard," the State accepted $500,000 from one of the defendant companies with the understanding that the Magnolia and Corsicana Oil Co. were not guilty of the acts charged.

10 Years Ago

July 19, 1923

The Wewoka, Seminole County, Oklahoma, Pool, opened in March by R. H. Smith, has been definitely proven by the Producers & Refiners Corp. test in Section 33-8-8, which started at 90 bbls. an hour from sand at 3,140 feet. Many operators believe that a big field will be opened in Seminole County, and tests are drilling in several townships.

The 128 active refineries in the Mid-Continent Field (Kansas, Oklahoma, North Texas, North Louisiana and Arkansas), are running 304,695 bbls. of crude oil per day. There are 112 inactive plants in the same territory.

The Powell Field is producing 80,000 bbls. per day from 34 wells.

The Standard Oil Co. of New Jersey contracts to purchase 36,000,000 bbls. of crude oil from the California Petroleum Corp.

NEWS FOR PETROLEUM REFINERS

Ethyl Gasoline to Sell Two Cents Below Regular

The Ethyl Gasoline Corp. has sent telegrams to all its licensees that effective July 28, Ethyl Gasoline will sell at a 2-cent differential above the regular grade in all states except California, Oregon, Washington, Arizona and Nevada. The telegram follows:

"Having received acceptances to our June 26 proposal, wish to advise you that reduced gallonage charge will be effective for all mixes made on and after today, July 15, and the change in differential to 2 cents will be effective on Friday, July 28. These changes will not however, be effective on Ethyl Gasoline mixed for sale or sold in the states of California, Oregon, Washington, Arizona and Nevada."

The decision was the result of a ballot taken among the company's customers and the adverse attitude taken by the group selling Ethyl Gasoline along the Pacific Coast is not explained.

This move, together with the adoption of a second grade of ethylized gasoline places the refiner in a much better position to push the sale of gasolines of higher antiknock value and to better compete with the larger volume of straight-run, low-octane gasoline which has been so freely offered on the open market at abnormally low prices.

JERSEY ENTERS ANTIPODES

NEW YORK, July 17.—While some details of the acquisition remain to be adjusted before official confirmation of the deal can be made, the recent purchase of the 50 per cent interest in Union Atlantic Co., sold by Union Oil Co. of California, was said to be the Standard Oil Co. (New Jersey), probably acting in the role of trustees, and formal announcement of acquisition of this stock is expected to be made within the next month by the New Jersey company, marking a further important step in the development of foreign marketing operations by that company.

Union Atlantic Oil Co., Ltd., was incorporated in 1927, with headquarters at Sydney, N.S.W., following an agreement between the Union Oil Co. of California and Atlantic Refining Co., relative to their marketing operations in Australia and New Zealand. The Australian company has bulk marine terminals at Sydney, Melbourne, Newcastle, Auckland, Lyttleton and Wellington, with aggregate storing capacity of some 310,000 bbls. at last reports. The operating company likewise owns an extensive chain of bulk depots and retail service stations, and has many dealer accounts.

WIN RUSSIAN OIL SUIT

NEW YORK, July 17.—Standard Oil Co. of New York and Vacuum Oil Co. were victors in a suit involving their Russian oil purchases in the State Court of Appeals at Albany this week, the court's decision, incidentally, judicially acknowledging the existence of the Soviet Russian government and its right to rule within its borders and exercise control over its nationals.

The decision was in the case of M. Salimoff & Co., and 17 other Russian oil companies, whose acreage in the Baku Field were confiscated by the Soviet when the Russian oil industry was nationalized after the revolution of 1917. The oil extracted from these properties, subsequently, was sold in part to the two American companies under the terms of a long-term sales contract which they entered into with the Soviet oil trust several years ago.

Procedure to Market Lubricants Through an Agent for Further Manufacture

WASHINGTON, D. C., July 15.—An agency agreement entered into between "A" and "B" Companies, and records and forms covering a typical case involving a tax-free sale of lubricating oil under the agreement to "C" Company for further manufacture under Section 620 of the Revenue Act of 1932, having been submitted to the Bureau of Internal Revenue by Willis Crane, associate counsel of the national, the bureau holds as follows:

"Upon examination of the contract under which the particular sale is made, it is seen to be a contract of agency between the A Company, as principal, and the B Company, as agent, for the sale of oil, the compensation to the agent to be the difference between the price which the A Company charges for the oil and the price obtained from the purchaser by the B Company. The contract provides that where necessary or advisable, the agent will not disclose the principal.

"Paragraph 4 of the contract provides: 'Title to the oils so sold shall at no time vest in the second party but shall remain in first party until shipped to the buyers upon instructions of second party.'

"This provision clearly evidences that the intent of the parties is that title to the oil shall not pass to the agent, and in order for this provision to de disregarded there must be facts and circumstances to establish, irrespective of the provision, that title did pass.

"A study of the orders and forms covering the sale discloses the following:

"The B Company pursuant to its authority as agent, obtained an order from C Company, for a specified amount of lubricating oil. On January 6, 1933, the B Company sent confirmation of the sale to the C Company saying: 'We confirm sales made you this date for account of our principal.' On January 7, 1933, the B Company notified the A Company that the sale of the oil had been made to C Company. This notice of sale advised the A Company that it has 'sold for your account'; also 'this sale has been made for your account as your agent under conditions outlined above'; also 'all papers pertaining to this sale for your account shall be forwarded to our main office'; also 'we have guaranteed the following specifications on oils applying against this sale for your account.' The A Company's acknowledgement to the B Company dated February 14, 1933, acknowledges receipt of the order of the B Company as its agent for shipment to C Company. The B Company under date of February 14, 1933 (the date of shipment), billed C Company for the oil upon its own invoice. The invoice, however, bears the word 'agent' after the name of the B Company. A copy of the bill of lading issued by the Pennsylvania Railroad Co., February 14, 1933, shows the shipper to be 'B Company, agent,' and C Company, the consignee.

"At the time the order for the oil was given to the B Company, C Company furnished it with a certificate to the effect that the oil was bought by it for further manufacture.

"It is shown by the above that all communications in connection with the particular sale in question were made recognizing and acknowledging the B Company as agent for an undisclosed principal. There is nothing in the evidence which warrants even an inference that the B Company had taken title to the oil. The bill of lading, however, shows that the B Company, as agent, is the shipper. This fact, however, is the only evidence upon which to base a passing of title to the B Company, but the mere naming of the B Company on the bill of lading and perhaps on the tank car itself, or on the manifest, could not have the effect of vesting title to the oil in the B Company without some intention of the parties to pass the title. When it is considered that the desire of both the A Company and the B Company is to keep the principal undisclosed, the reason for having the B Company appear as the shipper becomes clear. The act is merely in furtherance of this purpose. At the very most, it might be construed as delivery of the oil to the B Company as agent for delivery to C Company. If so, it is a delivery unaccompanied by title.

"In view of the foregoing, it is held that the B Company made the sale to C Company, as agent, for the A Company, the transaction being a direct sale by the A Company to C Company, and if C Company is a manufacturer or producer of lubricating oil within the meaning of Section 601 (c) (1) of the Revenue Act of 1932, the A Company may sell the oil tax-free for further manufacture to C Company upon receipt of the exemption certificate provided for in Article 7 of Regulations 44 and Paragraph 5 of Treasury Decision 4,339."—C. E. K.

EMPLOYES RECEIVE STOCK

Sun Oil Co. has sent to employes participating in its five-year stock purchase plan, certificates for stock accruing to them under the plan which started in 1928 and matured on June 30 this year. A total of 9,118 shares were distributed among 874 employes. The plan permits employes to purchase stock to the extent of 10 per cent of earnings in any year, payments being deducted monthly. For every $2 paid, the company adds $1.

IMPERIAL TO BUILD LINE

CHATHAM, Ontario, July 15.—Imperial Oil, Ltd., is reported planning a 13-mile pipe line to deliver crude from the new North Cut Bank Field to the Maple Leaf Petroleums, Ltd., refinery at Coutts, Alberta. The new line will connect with the pipe line from the Red Coulee Field to the Coutts refinery.

START SALT CREEK PLANT

SALT CREEK, Wyo.—Salt Creek Refining Co., Inc., will start running crude through its stills next week. The plant is in the south end of the Salt Creek Field and along the highway from Salt Creek to Casper. It has a charging capacity of 100 bbls. which will be doubled as conditions warrant. The company is controlled by the Domino-Bessmer interests and will operate on crude from their leases in the Salt Creek Field. C. E. Littlefield is the manager of the new company and has offices in the Continental Oil Well Supply Co. building here.

REFINERY FOR SASKATCHEWAN

CHATHAM, Ontario, July 15.—Mutual Oil Refineries, Ltd., is completing the construction of a refining plant at Prince Albert, Saskatchewan. The plant is of 200 bbls. daily capacity and will employ about 15 men.

Wilson Named General Chairman A.C.S. Meeting

Dr. Robert E. Wilson, vice president of the Standard Oil Co. (Indiana), has been appointed general chairman of a committee to make plans for the eighty-sixth meeting of the American Chemical Society in Chicago, September 10-15.

The meeting will trace a century of progress in chemistry, and is expected to attract more than 3,000 scientists. Among the speakers will be oustanding chemists of Great Britain and the Continent.

Development of the chemistry of petroleum and of the petroleum industry will feature the discussions. The society's Division of Petroleum Chemistry, of which F. W. Sullivan of the Standard Oil Co. (Indiana), Whiting, Ind., is chairman, will hold five sessions, three of which will be given over to a symposium on "hydrocarbon decomposition," under the chairmanship of E. M. Clark.

The Division of Gas and Fuel Chemistry, of which Prof. A. W. Gauger of the University of North Dakota, is chairman, and the Division of Organic Chemistry, headed by Prof. C. S. Marvel of the University of Illinois, will participate in the symposium. Leading oil chemists from the industry and the research laboratories of the nation will present papers.

The chemists will visit the oil exhibit at the Century of Progress Exhibition. This exhibit deals with the chemical treatment and refining of oil. A complete miniature refinery, made largely of glass, has been constructed; and the refining processes, beginning with the fractional distillation of crude petroleum and ending with the highly purified products, may be seen in operation. Demonstrations of some of the characteristic properties of oils feature the display.

ATLAS BUYS SPARCO

SHREVEPORT, La., July 17.—Development of the Atlas Pipe Line Co. and affiliated interests, of Shreveport, into an integrated unit of the industry became a fact July 15, when sale of Sparco Gasoline Co. to the Atlas took effect. The latter organization was the sales agency of the Spartan Refining Co. which is spending approximately $1,000,000 on improvements to its refinery in Jewella, a Shreveport suburb. Atlas Pipe Line Co. is a reorganization of the old Shreveport-El Dorado Pipe Line Co. The improvements will include two Gyro cracking units. It is understood that no changes in personnel are to be made. Sparco Gasoline Co. has been expanding its marketing territory into Florida, Georgia, Alabama, Mississippi and Tennessee during the last few months.

OVERHAUL FABYAN REFINERY

CHATHAM, Ontario, July 15.—The refining plant operated by Messrs. Anderson and Stillson at Fabyan, Alberta, is being overhauled and put in shape to resume operations. The plant handles the asphaltic crude production of the Fabyan-Wainwright Field, the products being marketed locally.

B. C. CLARK CHAIRMAN

WASHINGTON, D. C., July 18.—Senator Bennett C. Clark of Missouri was appointed chairman of the subcommittee of five members of the Senate Finance Committee to conduct hearings on the administration bill to require the blending of alcohol with gasoline. The measure was brought forward in the last session of Congress as a part of the farm relief program, but action was deferred until next session. Hearings probably will start about November 1.

Economics of Proration Depends Upon Market

(Continued from Page 14)

age are insignificant as compared to increases in proven subsurface storage, even though adequate consideration is given to the fictitious nature of potential and initial production.

Is proration responsible for this condition, or should it be charged to price maintenance at levels sufficient to justify and permit new development? The price of any commodity not controlled by monopoly or legislation must eventually approximate the cost of obtaining that commodity. The only other alternative is legislative restriction on development, waste incurred from irregular withdrawals in pools like Oklahoma City and East Texas.

Other developments and excessive potential supply complete their cycle by forcing more oil on an already overburdened market. As investments increase, a commensurate increase in returns is required for profitable operation. More production causes lower prices and the cycle is repeated.

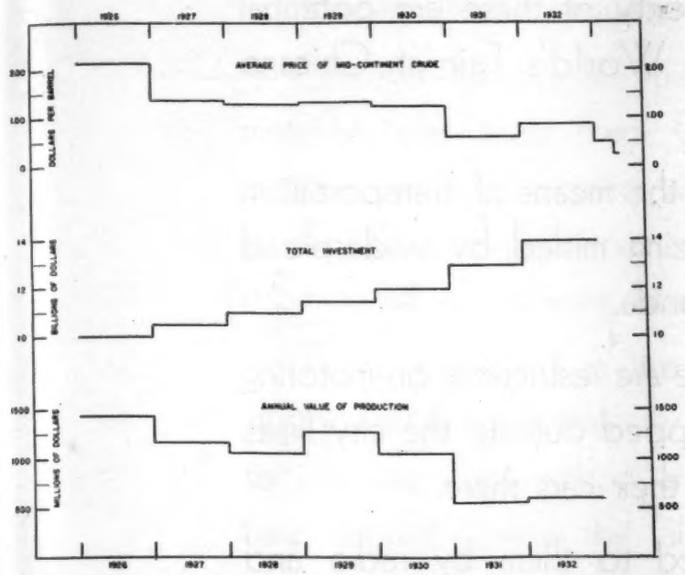
The methods of nominations used to determine market demand, have been uncertain and easily circumvented. Fictitious nominations have been used to increase allowable production causing distress oil. Nominations have been unintentionally duplicated with similar effect. Nominations are made without respect to price, there being no officially recognized posted price.

Flush fields have a maze of crossing and intersecting buried pipe lines. Some wells have been without pipe line connections, while others have had two or three connections. Large sums are invested in parallel gathering lines owned by various purchasers. Some pipe lines are owned by companies whose identity is variable from day to day. Unknown quantities of oil have been handled, in spite of the efforts of state enforcement officers. Federal legislation may stop interstate transportation of such oil but cannot be completely effective.

Refiners and purchasers have paid insufficient attention to the available and accurate forecasts of consumption. This practice has resulted in erratic and frequently excessive stocks of motor fuel.

In addition to the foregoing difficulties, proration has frequently been hindered by sincere but ill-advised public officials. Politics have played an inevitable part in what should be a scientific allocation of production. Economics have apparently been traded for votes in some instances.

CHART 2



which would invalidate the obligations of almost every lease contract.

The burdens of a low price structure fall ratably upon the owners of unamortizer flush wells and the owners of amortized stripper wells. The longer readjustment is postponed, the more severe and prolonged must be the period of eventual distress, resulting from a continually increasing surplus supply. Marginal wells are in a much better position to withstand low crude prices concurrently with low labor and material prices than will later be available.

Reasons for Apparent Failure of Proration to Stabilize the Industry

Our methods of proration have been harassed by other fallacious policies besides that of unjustified temporary price maintenance. Some of these policies have resulted in vicious cycles of acceleration.

Potential production are used as means of allocating the production among producers in a common pool. This method has encouraged each producer to increase the ability of his property to produce oil. In most cases no regard has been paid to demand for crude. Wells were spaced unreasonably close together, and some were completed with extra large casing to obtain a potential advantages over offsets. Competition has been keen in building up huge and considerably fictitious potentials. The fictitious nature of these potentials is exemplified by the fact that our semiofficial potential of approximately 140,000,000 bbls. a day would theoretically exhaust the entire reserves of the United States in 90 days. The true productive ability has been sufficient to wreck the price structure without such unreasonable publicity.

Any system based on allowance per well promotes oversupply. To date the owners of small tracts have successfully blocked most efforts toward ratable production upon a reserve or acreage basis. This condition must and will be corrected if for no other reason than the physical

Conclusions

In spite of the foregoing difficulties, proration is still a necessity. We must have a means of orderly determination and allocation of market outlook, until demand again equals supply. The system has been neither a failure nor a success.

The following recommendations are thought to be pertinent to the proper functioning of a better proration system:

1. Additional development should be curtailed by crude price or legislative action until supply and demand are balanced.

2. Proration based on potential production and/or per well, should be discarded in favor of more stable and conservative factors such as acreage and sand thickness.

3. A community gathering line system for each pool should gauge and transport all oil from the wells to an adjacent community tank farm, from which all purchasers would obtain their oil.

4. Nominations should be made obligations to purchase.

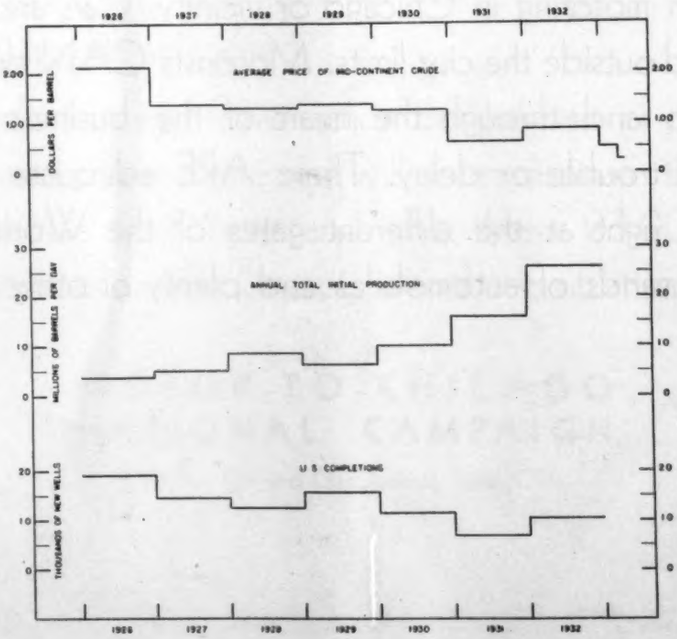
5. Nominations should be based on a price range schedule, each purchaser nominating the quantity he would desire under each of a variety of reasonable prices. The allowable of a pool would then be that quantity and price which would yield the greatest return to the producers collectively, all oil being sold at a common price.

6. Physical waste limitations should always take precedence over market demand nominations.

ADDRESS CORRECTED

In the Buyers Guide section of the June 22 issue Alten's Foundry & Machine Works should have been listed as being in Lancaster, Ohio.

CHART 3



Consider John S. Cooke As Committee Secretary

With the hearing on the code for the petroleum industry scheduled to be held in Washington starting next Monday, considerable interest is manifest in who will be chairman and secretary of the Emergency National Committee. Several prominent oil men, including Axtell J.

JOHN S. COOKE

Byles, president of the American Petroleum Institute; W. R. Boyd, Jr., executive vice president of the Institute; Wirt Franklin, of the Wirt Franklin Petroleum Corp., and W. N. Davis, vice president of Phillips Petroleum Co., have been mentioned for the chairmanship of this committee.

The secretaryship of this committee will be an important position. It will require a man thoroughly conversant with conditions in the oil industry; one who is well acquainted with the leaders in all branches and divisions, and one familiar with the work involved. In this connection, John S. Cooke, for the past 13 years secretary and executive assistant to the executive vice president of the American Petroleum Institute, seems to be the most prominently mentioned for the place. "Doc" Cooke, as he is known to oil men from coast to coast and from the Gulf to the Great Lakes, has been in close touch with the different associations affiliated with the petroleum industry for years, while his intimate knowledge of conditions, his tact and good humor under all conditions peculiarly fit him for the position as secretary of the Emergency National Committee.

Mr. Cooke also is being spoken of as the successor of Paul S. Hadlick, who resigned recently as secretary of the Marketing Division of the Institute and as assistant to Gen. Baird Markham and secretary of the American Petroleum Industries Committee.

NEW PIPE LINES, SOUTH TEXAS

The Pan American Refining Co. and Stanolind Pipe Line Co. will begin work shortly on a 32-mile 12-inch crude oil line from Sinco, Tex., to Texas City, Tex., where the Pan American Refining Co. will establish a 25,000-bbl. refinery. The Pan American company will also lay 47 miles of 10-inch line from Huffsmith, Harris County, to Sinco, with a branch running to Baytown.

EDGAR B. DAVIS INJURED

SAN ANTONIO, Tex., July 15.—Edgar B. Davis, millionaire Texas oil magnate and philanthropist, was severely injured Friday when the automobile in which he was riding collided with a vegetable truck.

Mr. Davis, who is 60 years old, was taken to a local hospital with severe cuts about the head and possible internal injuries. He lives in Luling, but spends much of his time in San Antonio.

Combat False Information

There are 23,000,000 automobile owners in the United States. A large majority of these are potential prospects for trips to the World's Fair at Chicago BY AUTOMOBILE.

They are anxious to use the means of transportation they own. But many are being misled by widespread false information and propaganda.

They have been told there are restrictions on motoring in Chicago; that cars are stopped outside the city limits and motorists forced to park their cars there.

Other propaganda passed to them by radio and other means includes statements that drivers' licenses are necessary in Chicago, and that it is very difficult to get room accommodations and parking facilities.

None of this propaganda is true. There are NO restrictions on motoring in Chicago or vicinity. Cars are NOT stopped outside the city limits. Motorists CAN drive into Chicago and through the heart of the business district without trouble or delay. There ARE adequate parking facilities right at the different gates of the World's Fair for thousands of automobiles and plenty of other parking

places within easy reach of the Fair grounds. Drivers' licenses are NOT required of motorists.

Chicago has special traffic officers on duty to aid motorists and direct them. Clean, comfortable accommodations can be procured without trouble for from $1.00 to $3.00 per night per person in hotels, apartments, rooming houses, private homes and motor villages.

Those interested in the welfare of the petroleum industry and the opportunity afforded by the World's Fair to increase consumption and strengthen the price structures should combat this false propaganda.

Companies with radio facilities should devote a part of their programs to giving the motoring public true information. The automobile is by far the cheapest means of transportation to the Fair.

The Oil and Gas Journal will be glad to supply facts to anyone interested.

Quick and aggressive action on the part of oil companies and others interested will soon dissipate this false propaganda. Get busy and give these 23,000,000 automobile owners a true picture of the situation.

MOTOR-TO-CHICAGO NATIONAL CAMPAIGN

Care The Oil and Gas Journal, Tulsa, Okla.

Federal Regulations on Hot Oil Put Into Effect

(Continued from Page 7)

the Interior in any region, area, field, pool, or as applied to any particular properties or wells whenever, in his discretion, he deems their application unnecessary for the proper enforcement of the said act or orders issued thereunder, but no such suspension shall relieve any person, natural or artificial, from the duty of complying with the aforesaid act and orders; these regulations may be by him at any time, amended or changed in whole or in part."

Texas Order Revised

AUSTIN, Tex., July 17.—The Texas Railroad Commission July 13 reformed its orders regulating the shipment of oil from East Texas, to take into account orders just issued by President Roosevelt prohibiting the shipment of illegally produced or illegally withdrawn oil in interstate commerce or for export.

The commission March 8 had issued an exemption affecting interstate railroads, so as to avoid an apparent conflict with Federal powers. Under the new Federal regulation this exemption was canceled, so that state orders will deal with instances of shipment in conflict with the President's order.

The new order said Railroad Commission regulations restricting shipments "shall hereafter apply to all shipments of oil offered or tendered to any railroad common carrier transporting oil from the East Texas Field, whether the oil . . . shall be billed for intrastate, interstate, constwise or foreign shipment.

Hearing on Oil Code Set at Washington Monday

(Continued from Page 6)

fession of metallurgical engineer he has become somewhat familiar with the problems of the industry.

A native of western Pennsylvania, Mr. Simpson graduated from Columbia University and immediately entered his profession of metallurgical engineering. During the war he served with the War Department as a technical advisor, and since that time has been a consulting engineer with headquarters in New York.

Col. Cicero I. Murray will represent Governor William H. Murray at the conference.

James V. Allred, Texas attorney general, said he would accept the invitation of General Johnson, administrator, to attend the conference.

Governor Miriam Ferguson of Texas has appointed Representative T. H. McGregor of Austin and C. R. Starnes, San Antonio, treasurer of the Texas Independent Refiners Association to represent her.

Emergency Committee to Meet

Members of the Emergency National Committee, proposed as the general planning and co-ordinating agency for the petroleum industry under the National Recovery Administration, have been called to meet in Washington, July 21, to prepare for the public hearings July 24.

Eastern Marketers Submit Code

NEW YORK, July 17.—Eastern Independent Oil Marketers Association has sent to Washington a code providing for a 36-hour minimum week, a 40-cent minimum hourly wage and condemning the lease and license plan. The organization announced it was composed of "an overwhelming majority of independent oil marketers," in Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Maryland, Delaware, Virginia and Washington, D. C.

TANK FARM SOLD

SHREVEPORT, La., July 17.—The Martin tank farm of the Standard Oil Co. in Section 9-20-8, Claiborne Parish, has been sold by Ray O'Brien to Atlas Pipe Line Co. of Shreveport.

Crude Oil Prices

(Continued from Page 21)

Duval County (June 22, 1933) ..... .40
Saxet (June 19, 1933) ..... .45

Note—Effective July 7, Magnolia Petroleum Co., 55 cents in Darst Creek and Mirando; Darst Creek, Gulf Pipe Line Co. and Humble Oil & Refining Co., 40 cents; effective June 22, Texas Co., Magnolia Petroleum Co., 40 cents; Mirando, Magnolia Petroleum Co., 35 cents; Humble Oil & Refining Co., 40 cents. Pettus and Salt Flat by Humble and Gulf companies; Luling and Lytton Springs, by Magnolia Petroleum Co. Duval and Saxet, by Texas Co.

North Louisiana and Arkansas

Smackover, Ark. (all grades).....See note
Urania, La. (Jan. 20, 1933).....$ .35
East El Dorado, Ark. (June 19, 1933)..
.....See note
Other fields.....See gravity table

Note — Smackover, all grades, effective June 19 by Texas Co., 30 cents; June 19, Standard Oil Co. of Louisiana, 30 cents; June 20, Magnolia Petroleum Co., 30 cents; Gulf Refining Co., 30 cents; Louisiana Oil Refining Corp., 30 cents. Urania Field posted by Louisiana Oil Refining Co. and H. L. Hunt, Inc., East El Dorado, effective June 20, Magnolia Petroleum Co., 30 cents; Gulf Refining Co., 30 cents; Phil Tex Oil Co., effective June 19, posted 20 cents for all grades in Union and Ouachita Counties, Ark.

Eastern States

SOUTH PENN OIL CO.
(Effective July 17, 1933)

Pennsylvania Grade Oil in National Transit Lines (Bradford Field) $1.85
Pennsylvania Grade Oil in Southwest Pennsylvania Lines 1.52
Penna Grade Oil in Eureka Pipe Line Lines 1.47
Penna Grade Oil in Buckeye Pipe Line Lines 1.32
Corning Grade Oil in Buckeye Pipe Line Co.'s lines (July 18, 1933) ..... .90

TIDE WATER PIPE CO.
(Effective July 17, 1933)

Bradford, Pa. $1.85
Allegany, N. Y. 1.85

PURE OIL CO.
(Effective July 18, 1933)

Cabin Creek, W. Va. $1.47
Bradford Hollow, W. Va. 1.47

PENNZOIL CO.
(Effective July 17, 1933)

Pennsylvania Grade Oil in National Transit Lines:
Group A $1.77
Includes Cochran, Franklin, Hamilton and Doolittle districts.
Group B 1.76
Includes Titusville district.
Group C 1.75
Includes Turkey and Tidioute districts.
Group D 1.74
Includes Bear Creek and Porkey districts.
Group E 1.64
Includes Eldenau, Bull Creek, Rough Run, Carbon, Dipner, Bredin, McJunkin, Jameson, Kennerdell, Emlenton, Tiona, Lacy and Kinsua districts.
Price depends on length of pipe line haul to plant at Oil City.

Rocky Mountain States

Iles, light (July 8, 1933) ..... $.58
Iles, heavy (July 8, 1933) ..... .44
Florence, Colo. (June 17, 1933) ..... .30
Fort Collins and Wellington, Colo. (June 17).....(See Salt Creek prices)
Cat Creek, Mont. (June 17, 1933)..... .62
Big Muddy (July 8, 1933)† ..... .55
Frannie, light (July 8, 1933) ..... .41
Frannie, heavy (July 8, 1933) ..... .30
Salt Creek and La Barge (July 8, 1933) .....
See Stanolind Mid-Continent price schedule
Grass Creek, light (July 8, 1933) ..... .72
Grass Creek, heavy (Dec. 16, 1932)... .46
Elk Basin (July 8, 1933) ..... .72
Rock Creek (July 8, 1933)† ..... .54
Dutton Creek (July 8, 1933).....
.....See Mid-Continent gravity prices.
Lance Creek (Dec. 16, 1932)..... .31
Poison Spider (Mar. 5, 1931)..... .70
Hudson (June 2, 1931)..... .46
Lander (Mar. 5, 1931)..... .40
Rex Lake (Feb. 22, 1930)..... 1.10
Osage (Jan. 18, 1933)..... .53
Lost Soldier (July 3, 1933) ..... .42
Hamilton Dome (Dec. 16, 1932)..... .35
Torchlight (July 8, 1933) ..... .72
Greybull (July 8, 1933) ..... .72
Pondera (June 17, 1933) ..... .76
Sunburst (July 8, 1933) ..... .90
Hogback, N. Mex. (July 8, 1933) ..... .75
Lea County, N. Mex. (See Note) ..... .30
Maljamar (June 19, 1933) ..... .35
Artesia-Jackson (July 11, 1933) ..... .45

Note—Salt Creek, Cat Creek, Dry Creek, Dallas-Derby, Hudson, Greybull, Hogback, and Iles by Stanolind Oil & Gas Co. and remainder by Ohio Oil Co. Both companies posted Grass Creek light and Elk Basin. Lost Soldier posted by Producers & Refiners Corp. Artesia, Jackson and Maljamar posted by Continental Oil Co. Lea County, effective June 19, by all purchasers; Fort Collins, Wellington, Orchard, Florence, Big Muddy, Cat Creek, Rattlesnake and Table Mesa by Continental Oil Co. Osage posted by Arro.
*Continental Oil Co. †Ohio Oil Co.

Middle Western States

OHIO OIL CO.
(Effective July 12, 1933)

Lima ..... $.95
Illinois ..... .90
Princeton, Ind. ..... .90
Plymouth .....Shut in
Western Kentucky ..... .85
Midland, Mich. (July 17, 1933)* ..... .90
Somerset, Ky. (July 14, 1933) ..... .85
Hart County, Ky. (July 7, 1933) 1.00
Muskegon, Mich. (Mar. 27) .....See note

*Posted by Pure Oil Co. Producers Pipe Line Co. pays 5 cents per barrel over Pure Oil Co.'s posted price. Muskegon: All companies pay $1 per barrel effective March 27. Somerset, Ky., crude purchased by Ashland Refining Co., Ashland, Ky., and posted price includes premium. Hart County, Kentucky, crude purchased by Stoll Refining Co.

Canada

Ontario (Jan. 18, 1933):
Petrolia* $1.75
Oil Springs* 1.65
Turner Valley†:
Crude oil, 21°-35.9° (Jan. 24, 1933).... 1.41
Crude oil, 36°-49.9° (Jan. 24, 1933).... 1.90
Crude oil, 50° up (Jan. 24, 1933)..... 2.41
Discolored naphtha (Jan. 24, 1933)... 2.15
Crude naphtha (Jan. 24, 1933)..... 2.65

*Imperial Oil, Ltd. †Imperial Oil, Ltd. and Regal Oil & Refining Co.

Mexico

Panuco* $0.433

*F.o.b. ship, based on June transactions and exclusive of production and export taxes and bar dues.

California Crude Oil Prices

STANDARD OIL CO. OF CALIFORNIA
(Effective June 26, 1933)

For current purchases of crude oil at the well (unless otherwise specified). (All gravities above those quoted take highest price offered in that field.

	Signal Hill	Seal Beach, Alamitos Heights	Huntington Beach	Inglewood	Playa Del Rey*	Olinda-Brea Canyon	Athens, Rosecrans, Dominguez	Torrance	Richfield	Whittier, La Habra	Montebello	Coyote Hills	Santa Fe Springs	Midway-Sunset, Elk Hills, Buena Vista Hills	Lost Hills	Coalinga
14-14.9	$0.55	$0.55	$0.55	$0.55	$0.55	$0.55	...	$0.55	$0.55	$0.55	$0.55	$0.55	...	$0.52	$0.52	$0.52
15-15.9	.55	.55	.58	.58	.55	.58	...	.55	.55	.55	.55	.55	...	.52	.52	.52
16-16.9	.55	.55	.60	.61	.58	.61	...	.57	.55	.57	.55	.55	...	.52	.52	.52
17-17.9	.57	.55	.63	.64	.61	.64	...	.60	.59	.60	.55	.57	...	.52	.53	.52
18-18.9	.60	.56	.65	.67	.64	.67	...	.63	.62	.62	.55	.60	...	.52	.56	.52
19-19.9	.62	.60	.68	.70	.67	.69	...	.65	.66	.65	.55	.63	...	.54	.59	.52
20-20.9	.66	.63	.71	.73	.70	.72	...	.68	.69	.68	.55	.65	...	.57	.62	.53
21-21.9	.69	.67	.73	.77	.73	.75	...	.70	.72	.71	.58	.68	$0.60	.61	.65	.56
22-22.9	.71	.70	.76	.80	.76	.77	...	.73	.75	.74	.60	.71	.64	.65	.68	.59
23-23.9	.74	.72	.78	.83	.79	.80	$0.68	.75	.78	.76	.64	.73	.67	.69	.70	.61
24-24.9	.77	.77	.81	.86	.82	.83	.71	.78	.82	.79	.67	.76	.70	.72	.73	.64
25-25.9	.80	.80	.83	...	.85	.85	.75	.80	.85	...	.71	.79	.73	.76	.76	.67
26-26.9	.82	.83	.86	...	.88	.88	.79	.83	.88	...	.75	.82	.76	.80	.79	...
27-27.9	.85	.87	.88	...	...	.91	.83	...	.92	...	...	.84	.80	.83	.81	...
28-28.9	.88	.90	.91	...	...	.94	.86	...	.95	...	...	.87	.83	.87	.84	...
29-29.9	.90	.93	.93	...	...	...	.89	...	.98	...	...	.90	.86	.91	.87	...
30-30.9	.93	.97	.96	...	...	...	.93	...	...	...	...	.93	.89	.95	.89	...
31-31.9	...	...	...	...	...	...	.97	...	...	...	...	.95	.92	.98	...	...
32-32.9	...	...	...	...	...	...	1.00	...	...	...	...	.98	.96	1.02	...	...
33-33.9	...	...	...	...	...	...	...	...	...	...	...	1.01	.99	1.06	...	...
34-34.9	...	...	...	...	...	...	...	...	...	...	...	1.03	1.02	...	...	...
35-35.9	...	...	...	...	...	...	...	...	...	...	...	...	1.05	...	...	...
36-36.9	...	...	...	...	...	...	...	...	...	...	...	...	1.08	...	...	...
37-37.9	...	...	...	...	...	...	...	...	...	...	...	...	1.11	...	...	...
38-38.9	...	...	...	...	...	...	...	...	...	...	...	...	1.14	...	...	...

Elwood—F.o.b. ship, 32-32.9 degrees, 91 cents; 34-34.9, 94 cents; 35-35.9, 97 cents; 36-36.9, $1; 37 degrees and over, $1.03.
Kettleman Hills—32-32.9 degrees, 76 cents; 34-34.9, 78 cents; 35-35.9, 80 cents; 36-36.9, 82 cents; 37-37.9, 84 cents; 38-38.9, 86 cents; 39 degrees and over, 88 cents.
Newhall, McKittrick and Kern River—14 degrees to 19 degrees and over, 52 cents.
Wheeler Ridge—14 to 20.9 degrees, 53 cents; 21-21.9, 55 cents; 22-22.9, 57 cents; 23-23.9, 60 cents; 24-24.9, 63 cents; 25 degrees and over, 66 cents.

The Union Oil Co. met all Standard Oil Co. of California prices in fields where both companies purchase, and posted as follows in East Coyote: 14 to 15.9 degrees, 55 cents; 16-16.9, 57 cents; 17-17.9, 60 cents; 18-18.9, 62 cents; 19-19.9, 65 cents; 20-20.9, 68 cents; 21-21.9, 71 cents; 22-22.9, 74 cents; 23-23.9, 76 cents; 24 degrees and over, 79 cents. Santa Paula, 14 to 18.9 degrees, 55 cents; 19-19.9, 57 cents; 20-20.9, 60 cents; 21-21.9, 62 cents; 22-22.9, 65 cents; 23-23.9, 67 cents; 24-24.9, 70 cents; 25-25.9, 72 cents; 26-26.9, 75 cents; 27-27.9, 77 cents; 28-28.9, 80 cents; 29-29.9, 83 cents; 30 degrees and over, 85 cents. Orcutt, 16 to 18.9 degrees, 52 cents; 19-19.9, 54 cents; 20-20.9, 57 cents; 21-21.9, 61 cents; 22-22.9, 65 cents; 23-23.9, 69 cents; 24-24.9, 72 cents; 25-25.9, 76 cents; 26 degrees and over, 80 cents. Lost Hills and Belridge schedule same as that of the Standard Oil Co. of California in Lost Hills; Mount Poso, Kern River, McKittrick schedule same as Standard's Newhall, McKittrick and Kern River schedule except that Union Oil Co. posts 47 cents for 11 to 13.9 degrees, inclusive. Union Oil Co.'s schedule also posts 47 cents per barrel for 11 to 13.9 gravity in Coalinga, Midway-Sunset, Elk Hills and Buena Vista Hills.

Texas Co. effective June 26, 1933, met Standard Oil Co. of California prices in Signal Hill, Alamitos Heights, Huntington Beach, Torrance, Richfield, Montebello-North Whittier, Santa Fe Springs, and pays following prices in Shiells Canyon, South Mountain and Santa Paula: 14 to 18.9 degrees, 55 cents; 19-19.9, 57 cents; 20-20.9, 60 cents; 21-21.9, 62 cents; 22-22.9, 65 cents; 23-23.9, 67 cents; 24-24.9, 70 cents; 25-25.9, 72 cents; 26-26.9, 75 cents; 27-27.9, 77 cents; 28-28.9, 80 cents; 29-29.9, 83 cents; 30 gravity and over 85 cents.

Associated Oil Co., effective June 26, 1933, adopted Standard Oil Co. of California's prices with a few reservations in the upper brackets. In Huntington Beach the highest price is 86 cents for 26 degrees and over. In Seal Beach and Alamitos Heights, top price is 88 cents for 26 degrees and over; Coyote Hills, top price is 73 cents for 23 degrees and over. In Richfield, top price is 85 cents for 25 degrees and over; Torrance, top price is 80 cents for 25 degrees and over; Santa Fe Springs, top price is $1.05 for 35 degrees and over; Midway-Sunset, Elk Hills and Buena Vista Hills, top price is 95 cents for 30 degrees and over; the Associated Oil Co. also posts 47 cents per barrel for 11 to 13.9 gravity oil in McKittrick, Kern Front, Kern River, Midway-Sunset, Elk Hills, Buena Vista Hills and Coalinga.

General Petroleum Co., effective June 26, 1933, posted same prices as Standard Oil Co. of California with some reservations in the upper grades in some fields and in lower grades in one field: Midway-Sunset, top price is 95 cents for 30 degrees and over; Alamitos Heights, top price of 88 cents for 26 degrees and over; Santa Fe Springs, bottom price of 70 cents for 24-24.9; Richfield, top price of 85 cents for 25 degrees and over; Brea Canyon, Olinda, top price of 85 cents for 25 degrees and over; Torrance, top price of 80 cents for 25 degrees and over.

Dr. Walker Made Head of Texas Petroleum Council

AUSTIN, Tex., July 17.—Dr. A. W. Walker, Jr., professor of oil and gas law in the University of Texas, today was elected president of the Texas Petroleum

DR. A. W. WALKER, JR.

Council, recently organized to co-operate in the enforcement of proration and production orders in Texas oil fields. The election was held at a meeting of the board of directors. John Kilgore, of Wichita Falls, was chosen vice president and E. O. Buck, petroleum engineer for the Conroe Operators Association, was named technical vice president. Alan Peden, of the Houston Post, was made publicity director and George Heyer, of Houston, chairman of the finance committee.

An executive committee was chosen as follows: Charles F. Roeser, of Fort Worth; J. R. Parten, of Shreveport, La.; John R. Suman, of Houston; Jack Pew, of Dallas; J. H. Clark, of Fort Worth; T. E. Swigart, of Houston; H. L. Hunt, of Tyler; R. L. Wheelock, of Corsicana; Tom Cranfill, of Dallas; and J. L. Hamon, of Longview.

The council telegraphed Secretary of the Interior Ickes that one of its purposes was to "render such aid as may be asked or permitted by those to whom the powers of the President are designated under the National Recovery Act."

The telegram said that the Texas Railroad Commission, director of oil and gas regulations in this State, had "expressly invited" the council's "aid and co-operation."

The Secretary of the Interior was requested to send a representative to a meeting set for Longview next Thursday.

EAST TEXAS ALLOWABLE

FORT WORTH, Tex., July 18.—A new allowable has been set for East Texas, effective at 7 a.m., July 17. It provides for a production of 573,272 bbls. daily from the 10,162 wells in the field.

FIRE TAKES SIX LIVES

SHREVEPORT, La., July 17.—R. C. Burns, superintendent of the Simms Oil Co.'s refinery at Smackover, Ark., and five other men were burned to death in a fire following an explosion in the H. H. Cross Co.'s refinery at Smackover, July 13. They include Dudley Dutton, H. T. Morgan, Monroe Winn and Jack Van Wagoner, employes of the Cross plant, and C. A. Soars, consulting engineer, of Kansas City, Mo.

C. L. Murphy, superintendent of the Cross refinery; L. Whaley, A. D. Doran and C. L. Huffman, employes, were severely burned.

The fire followed an explosion of undetermined cause in an old portion of the refinery and spread to a new cracking unit which was operating under test. Damage to the plant was estimated at $7,000.

Ickes' Order on Royalty Deducts for Impurities

WASHINGTON, D. C., July 17.—Government oil lessees will have to account for royalties due the United States on a basis of 100 per cent production, less a deduction for actual impurities in the oil, under an order issued by Secretary of Interior Ickes.

Oklahoma operators opposed the order when it was announced by former Secretary Wilbur. At a hearing last February they argued that testing for impurities would require expensive apparatus which would work great hardship on the small producer.

At a hearing before Secretary Ickes on May 3, Rush Greenslade, Tulsa, represented the Mid-Continent Oil and Gas Association; Clay Tallman, Tulsa, of the Stanolind Oil & Gas Co.; W. W. Warner, Nowata, president, Oklahoma Stripper Well Association; and R. S. Knappen, Gypsy Oil Co., Tulsa; the late Harry H. Smith, Tulsa, and others protested the order.

The new order alters the basis of computation in those fields of the Mid-Continent area where lessees have heretofore made deductions of from 1 to 3 per cent for impurities in the oil.

"Future deductions will be based on scientific tests rather than upon any arbitrary percentages," said Secretary Ickes. "The decision is of particular importance to the Government in those fields where sliding scale royalty rates are enforced. Short volume measurement in those fields has deprived the Government of royalties based upon the upper brackets of production."

An order requiring an adjustment of volume to the temperature of the oil has likewise been approved and reapproved, Secretary Ickes said.

Noted Legal Economists Aid Texas Investigators

FORT WORTH, Tex., July 18.—Prof. J. Howard Marshall of Yale Law School, Dr. Norman L. Meyers, associate attorney, Federal Power Commission, and J. H. Leech, Department of the Interior investigator, have arrived in Tyler to assist the division of investigation of the department in its work of checking production of illegal oil in East Texas. Other agents are on the way and more will be sent later to see that the President's recent order is carried out by producers and transporters of oil.

A. D. Ryan left Washington by plane for Longview Monday to serve as special agent in charge of the investigating force of the Department of the Interior charged with running down and prosecuting violations of conservation laws.

SHREVEPORT FILES PROTEST

SHREVEPORT, La., July 17.—Effective as of July 15, the Shreveport office of the Bureau of Mines, maintained here since 1919, has been ordered closed and R. E. Heithecker, engineer in charge, is being transferred to Houston, Tex. The Shreveport Geological Society, through George W. Schneider of the Texas Co., president, filed formal protest with the director of the bureau at Washington and enlisted the support of Congressman John W. Sandlin and others in keeping the office here. Prospective exploration of deeper horizons in North Louisiana-Arkansas territory is one of the reasons they will urge for not abandoning the office, which has been of much assistance and value to the oil industry in this territory since the Homer boom days of 1919.

CRUDE OIL PRICE CHANGES

(Continued from Page 22)

cents, and ending with 40 degrees and over at 65 cents. In Carson, Hutchinson and Moore Counties the schedule starts at below 31, 35 cents; 31-31.9, 37 cents, with 2 cents added for each degree upward to 40 and over at 55 cents.

Late Fields

KANSAS

A semiwildcat test on the west side of the Johnson Pool, in McPherson County was drilling in the Wilcox sand. Hartman, Skaer and others' No. 1 West, NE cor. SE SE Section 34-19-3w, found the top of the Wilcox sand at 3,537 feet and was drilling in the sand at 3,600 feet with no showing of gas, oil or water. It is the intention of the operators to drill to the Siliceous lime before abandoning the well.

E. F. Murray and others' No. 1 Dyck, SW cor. NE SW Section 8-22-3w, in the northern part of the Hollow Pool, in McPherson County, was drilled deeper into the chat and the production increased. The well made 2,219 bbls. of oil the first 24 hours from chat at 3,201-16 feet. It was only a small well in the upper part of the chat formation.

The wildcat test of Clum, Washoma Petroleum Co. and others, No. 1 Nelson, NW cor. SE NW Section 12-18-4w, McPherson County, was landing the 6-inch casing at 3,183 feet in the Mississippi lime.

W. C. McBride, Inc.'s No. 3 Schmidt, NW cor. NE NE Section 30-22-3w, in the south end of the Hollow Pool, in Harvey County, found a showing of oil in the Hunton lime and will drill deeper to the Wilcox sand. It found the base of the Hunton lime at 3,410 feet and was drilling at 3,420 feet.

W. C. McBride, Inc.'s No. 2 Koehn, NW cor. NE Section 33-21-3w, in the Mabee-Nikkel Pool, in McPherson County, extends production one location to the north. A showing of oil was found in the top of the Hunton lime at 3,435 feet. The crew was underreaming the casing to the top of the pay horizon before drilling deeper. The well is the north offset to the Mid-Kansas Oil & Gas Co.'s No. 2 Schmidt, a Hunton lime producer.

The Shell Petroleum Corp. announces that it has started construction of a pipe line to the Hollow Pool, in Harvey County, to the Mabee Pool in McPherson County and to the Burrton area in Reno County. Its present pipe line ends at the Ritz-Canton and Voshell Pools in McPherson County, and this will be extended to these areas. The pipe will be 4 and 6-inch and the greatest distance will be around 15 miles.

OKLAHOMA

The Oklahoma Corporation Commission issued orders increasing allowables on the six wildcat pools in the State, opening them to daily production as of July 15. The Lucien Pool, in Noble County, with five wells, was granted an allowable of 8,000 bbls. daily. The deep sand in the Marshall Pool, in Logan County, was given 100 per cent allowable, the potential being 1,242 bbls. The 10 Calvin sand wells in the East Earlsboro Pool were given 50 per cent of the potential as an allowable. The potential was 7,813 bbls. Sasakwa Townsite Pool was allowed 50 per cent of the 2,712-bbl. potential. Keokuk Falls area, in Seminole County, was allowed 25 per cent of its potential of 2,061 bbls. The Winona Oil Co.'s No. 1 Ambrey, in Section 27-7-8, Seminole County, was given an allowable of 500 bbls. a day.

Magnolia Petroleum Co.'s No. 1 Waggoner, C SW SE Section 2-14-3, a wildcat in Lincoln County, found the top of the Viola lime at 4,897 feet and was drilling at 4,903 feet. It expects to reach the Wilcox sand in a few days.

The Gypsy Oil Co.'s No. 1 Walker, C NE NE Section 33-17-4w, is a location in the Crescent Pool, Logan County. The test is south of the discovery well. It is the third test to be announced in this area since oil was found last week, in the Wilcox sand.

Dundee Oil Co.'s No. 1 Pickens, NE cor. Section 21-7-8, in the West Holdenville Field, Hughes County, missed the Booch sand and found a showing of oil in the Gilcrease sand at 3,048-3,100 feet. Oil rose 400 feet in the hole in a few hours.

J. H. Everts and others' No. 1 Crane, SW cor. Section 15-3s-14w, Tillman County wildcat, is a location in the center of a block of approximately 5,000 acres.

Dodd & Burton's No. 1 Grigsby, NW cor. SE NE Section 35-1-3, western Coal County, was bailing the hole to test a showing of oil found at 1,858-70 feet.

J. W. Madison and others' No. 1 Tussey, NW cor. NE SW Section 24-1-4w, is a new wildcat location on the east edge of Stephens County. It is being drilled on a 560-acre block of leases and is on the trend northwest from the Tatums Field in Carter County. The contract calls for a 4,000-foot test.

Central Pennsylvania Oil Producers Association

OIL CITY, Pa., July 15.—A reorganized Central Pennsylvania Oil Producers Association came into being as 200 producers from Venango, Clarion, Crawford and Mercer Counties met at Franklin on the call of D. B. McCalmont and W. J. Brundred.

The organization has been in existence for 17 years but has not held a meeting since 1930. At the close of the meeting there were 600 members enrolled. Efforts to secure 1,900 in membership will be continued. Both royalty and lease owners are being invited.

The position of the producers of this district in relation to the code was explained by D. B. McCalmont of Franklin and W. J. Brundred of Oil City, representatives at the Chicago meeting, new by-laws were adopted, 35 directors elected, officers and an executive committee named.

The officers for the year are: President, David B. McCalmont of Franklin; vice presidents, W. J. Brundred of Oil City and W. D. Doyle of Franklin; secretary, H. D. Brown of Oil City and treasurer, E. E. Grimm of Franklin. These officers and the following constitute the executive committee: L. S. Neely of Knox, George E. Bayless of Titusville, Harry H. Craig of Clintonville, V. G. Monroe of Pleasantville, Frank Bowers of Rouseville and J. B. Osborne of Titusville.

The 35 directors elected were: Clarion district, H. R. Panton, S. F. Amsler, L. S. Neely, O. H. Culbertson, Frank Shreffler, B. M. Thomas and Isaac Hess; Venango district, D. B. McCalmont, E. E. Grimm, W. J. Brundred, H. D. Brown, Dr. H. A. Downs, John H. Glass, Howard Smithman, Frank Bowers, S. Y. Ramage III, H. J. Crawford, J. P. O'Neil and James Foster; Titusville-Pleasantville district, J. B. Osborne, George Bayless, Wilbur Scofield, J. M. Bailey, Dr. B. W. Bedford and V. G. Monroe; Clintonville-Bullion district, Earl Hoffman, B. A. Porter, Harry H. Craig, C. B. Hoffman, R. V. Phipps, J. B. Porter and J. M. McQuiston; Mercer district, J. E. McCombs and W. D. Doyle.

The nominating committee was composed of E. E. Grimm of Franklin, J. B. Osborne of Titusville, O. H. Culbertson of Clarion, J. E. McComb of Rouseville and J. M. McQuiston of Clintonville.

The committee on by-laws was composed of W. D. Doyle of Franklin, James Foster of Franklin and J. H. Glass of Oil City.

D. B. McCalmont was chairman of the meeting and H. D. Brown, secretary.

The producers approved the action of the district representatives at Chicago and voted approval of the producers and marketers code. In the marketers code they approved that portion of Rule 8 which is opposed to the lease and agency agreement.

The producers also voted to petition Governor Pinchot to include the oil conservation bill for legislative consideration should any call be issued for a special session of the legislature.

Among the speakers were C. C. Hogg of Pleasantville, A. V. Klinger of Warren, president of the Middle District Association; Lee Neely of Clarion, O. H. Culbertson of Clarion, J. B. Osborne of Titusville, State Assemblyman J. H. McKinney of Victory, J. M. McQuiston of Clintonville and P. C. Beers of Oil City.

Federal Investigators Are at Work in East Texas; Sinclair Prairie Line Is Nearing Completion

By L. E. BREDBERG

DALLAS, Tex., July 17.—There were 38 locations staked in the East Texas Field during the week and 28 wells completed. Drilling activities are expected to ride along at about the present level, or around 20 locations and 20 completions each week. The attorney general's department continues to be active in the serving of injunctions and receivership suits against reported violators, several of each having been filed during the week.

The Federal Government tax men working in the field continue to ferret out tax exemptions, and are bringing to light many facts in regard to violations, facts which the Railroad Commission and others have not been able to ascertain, due to the violators keeping two sets of books, one for themselves and for the time when the Federal Government might call on them for such records, and another set for anyone who might come in from the State's organizations to check up on their activities.

Federal investigators who are being sent to the field by the N.R.A. will find much help in checking violations by the work already accomplished by their predecessors from the Internal Revenue Department.

Southern Rusk County

Two more wells are promised for the extreme southern end of the field. Mid-Kansas Oil & Gas Co.'s No. 1 Van Zandt, in the J. H. Sparks Survey, is making an estimated 15,000,000 feet of gas with a small show of oil. Earle Brown's No. 2 Arnold, in the W. Christian Survey, topped the sand at 3,657 feet and cored some saturated sand. Total depth is 3,665 feet. Casing has been cemented. This area, southern Rusk County, has not yet been separated from the main part of the field as petitioned for a couple of weeks ago by the Womack Oil Co. and others who want it placed under no proration order until the area is making 10,000 bbls. per day.

Shell Petroleum Corp.'s No. 1 Beggs, in the Carter Survey, Leon County, was reported to have topped the Pecan Gap chalk at 4,075 feet. Elevation is 365 feet, which makes the test running but slightly higher than the first test on this structure by the company and its associates.

Line Nearing Completion

Sinclair Prairie Pipe Line Co.'s 12-inch line from Colonels Station to Huffman Station near Houston will be completed and ready for operation within a week. The south end of the line has been completed and in operation, and the north half is now in process of completion. This line is approximately 150 miles long and will give the Sinclair Prairie Oil Co. added outlet, augmenting a looped 8-inch line from the field south. This line will also cause the severance of a contract with the Stanolind Pipe Line Co., which is now transporting about 25,000 bbls. per day for the former company, taking over the oil at Mexia for carrying to Houston.

COMPLETIONS IN EAST TEXAS

North Gregg County

Deep Rock Oil Co.'s No. 4-B Prichard, top sand 3,503 feet, initial production 37 bbls. in one-quarter hour through open tubing, total depth 3,563 feet. East Texas Oil & Refining Co.'s No. 7 F. White, top sand 3,561 feet, initial production 40 bbls. in 20 minutes through open tubing, total depth 3,590 feet. Gulf Production Co.'s No. 9 Lacy Snider, top sand 3,466 feet, initial production 90 bbls. per hour through open tubing, total depth 3,497 feet. C. & G. Oil Co.'s No. 1 Hoyt, top sand 3,540 feet, initial production 100 bbls. per hour through open tubing, total depth 3,570 feet. Rowan and Nichols' No. 3-A Todd, top sand 3,543 feet, initial production 158 bbls. per hour through open tubing, total depth 3,653 feet. Sinclair Prairie Oil Co.'s No. 9 J. R. Williams, top sand 3,488 feet, initial production 38 bbls. in one-quarter hour through open tubing, total depth 3,534 feet. Stanolind Oil & Gas Co.'s No. 14 J. G. Persons, top sand 3,511 feet, initial production 78 bbls. in 1 hour and 45 minutes through 2-inch open tubing, total depth 3,565 feet; No. 15 J. G. Persons, top sand 3,527 feet, initial production 82 bbls. in 1 hour and 50 minutes through 2-inch tubing, total depth 3,584 feet. Superior Oil & Gas Co.'s No. 13-A Prichard, top sand 3,512 feet, initial production 35 bbls. in one-quarter hour through open tubing, total depth 3,588 feet; No. 4-B Prichard, top sand 3,505 feet, initial production 35 bbls. in 15 minutes through open tubing, total depth 3,558 feet.

South Gregg County

Jones and O'Brien's No. 12 Hughey-Ross, top sand 3,501 feet, initial production 55 bbls. per hour through open tubing, total depth 3,548 feet. Magnolia Petroleum Co.'s No. 8 S. Carr, top sand 3,454 feet, initial production 92 bbls. per hour through open tubing, total depth 3,480 feet; No. 4 Laird and Crim, top sand 3,586 feet, initial production 92 bbls. per hour through open tubing, total depth 3,588 feet. Mullendore and Berry's No. 3 A. Spear, top sand 3,544 feet, initial production 100 bbls. in one-half hour through open tubing, total depth 3,565 feet. Texas Co.'s No. 11 H. T. Elder, top sand 3,605 feet, initial production 80 bbls. per hour through open tubing, total depth 3,635 feet. Tide Water Oil Co.'s No. 7 T. Bell, top sand 3,682 feet, initial production 9 bbls. in 10 minutes through open tubing, total depth 3,687 feet. Wheelock and Collins' No. 1 Hilburn Estate, top sand 3,504 feet, initial production 90 bbls. per hour through open tubing, total depth 3,556 feet.

North Rusk County

J. Boren's No. 3 A. Holt, top sand 3,660 feet, initial production 18 bbls. in one-quarter hour through open tubing, total depth 3,696 feet.

South Rusk County

W. B. Hamilton and others' No. 5 L. A. Gambrell, top sand 3,664 feet, initial production 90 bbls. per hour through open tubing, total depth 3,680 feet. Humble Oil & Refining Co.'s No. 11 C. J. Thompson, top sand 3,669 feet, initial production 75 bbls. per hour through open tubing, total depth 3,701 feet. H. L. Hunt Production Co.'s No. 4-A Joe Lee, top sand 3,746 feet, initial production 75 bbls. per hour through open tubing, total depth 3,771 feet. Standard Oil Co. of Kansas' No. 3 O. F. O'Brien, top sand 3,778 feet, initial production 115 bbls. in one-half hour through open tubing, total depth 3,790 feet. Tide Water Oil Co.'s No. 7-A Mrs. W. B. Thompson, top sand 3,667 feet, initial production 60 bbls. per hour through open tubing, total depth 3,710 feet.

Smith County

H. L. Hunt's No. 10-A Fair, top sand 3,653 feet, initial production 110 bbls. per hour through open tubing, total depth 3,655 feet. Standard Oil Co. of Kansas' No. 6 M. L. Thompson, top sand 3,612 feet, initial production 44 bbls. in one-half hour through open tubing, total depth 3,632 feet.

Upshur County

Humble Oil & Refining Co.'s No. 21 J. D. Smith, top sand 3,621 feet, initial

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East Central Texas Wildcats

Week Ending July 17

FRANKLIN COUNTY

Company, well, farm name, section and block—	Remarks:
Van Emon et al's No. 1 O. S. Maxton, 910 varas W and 910 varas S of NE cor. of survey, John Brown Sur.	Rig up.

FREESTONE COUNTY

Devonian Oil Co.'s No. 1 J. G. Beall, 330 ft. out of SE cor. of 220-ac. tract, 3 miles SW of Donie, Isaac Connelly Sur.	Drlg. 4,270 ft.

GREGG COUNTY

Adams and Lyles' No. 5 L. Howard, 1,400 ft. from N line and 2,320 ft. from W line of survey, Mary Scott Sur.	Rig up.
Almeda Oil Co.'s No. 2 R. P. Doby, 737 ft. from W line and 910 ft. from S line of survey, M. Irwin Sur.	Derrick.
Badgett et al's No. 1 A. A. King, 3,200 ft. from S line and 395 ft. from W line of survey, M. Tennyson Sur.	Rig up.
C. & G. Oil Co., Inc.'s No. 2 Hoyt, 290 ft. from N line and 535 ft. from E line of lease, J. Mosley Sur.	Rig up.
Cranfill & Reynolds' No. 4 Howard, 1,390 ft. from N line and 2,290 ft. from E line of survey, Mary Scott Sur.	Drlg. 3,595 ft.
East Texas Refining Co.'s No. 4 R. R. Collins, 2,880 ft. from N line and 4,310 ft. from W line of survey, D. Sanches Sur.	Drlg. 3,502 ft.
East Texas Refining Co.'s No. 5 R. R. Collins, 3,480 ft. from N line and 5,290 ft. from W line of survey, D. Sanches Sur.	Derrick.
East Texas Refining Co.'s No. 4 T. W. Tuttle, 6,060 ft. from N line and 6,900 ft. from W line of survey, W. H. Castleberry Sur.	Rig up.
East Texas Refining Co.'s No. 6 T. W. Tuttle, 5,050 ft. from N line and 6,900 ft. from W line of survey, W. H. Castleberry Sur.	Waiting on cmt. to set; T.D. 3,558 ft.
East Texas Refining Co.'s No. 2 D. G. Sparks, 75 ft. S and 200 ft. E of most northerly NW cor. of survey	Drlg. 3,495 ft.
East Texas Refining Co.'s No. 6 Doby, N offset to Stanolind's No. 5 Meadows, M. Mann Sur.	Set surface csg.
East Texas Refining Co.'s No. 5 C. Fisher, 3,400 ft. from N line and 2,980 ft. from E line of survey, J. Ruddle Sur.	Drlg. 825 ft.
East Texas Refining Co.'s No. 3 White, 5,700 ft. from N line and 820 ft. from E line of survey, H. Edwards Sur.	Rig up.
Everett Drilling Co.'s No. 2 O. Cooke, 3,490 ft. from W line of survey and 1,750 ft. from N line, G. F. Penn Sur.	Drlg. 1,025 ft.
F. H. E. Oil Co.'s No. 5 R. Christian, 4,900 ft. from N line and 1,590 ft. from E line of survey, G. W. Hooper Sur.	Swabbing; T.D. 3,655 ft.
Foundation Oil Co.'s No. 3 L. Willis, 4,820 ft. from S line and 5,950 ft. from E line of survey, G. W. Hooper Sur.	Rig up.
Gulf Production Co.'s No. 3 S. Elder, 1,564 ft. from S line and 1,950 ft. from W line of survey, J. Wilkerson Sur.	Drlg. 1,664 ft.
Heyser & Heard's No. 2 Hindman-Guy, 5,160 ft. from S line and 2,000 ft. from W line of survey, G. W. Hooper Sur.	Derrick.
Rodger Lacy's No. 5 fee, 4,300 ft. from N line and 3,990 ft. from W line of survey, M. V. Winkle Sur.	Drlg. 2,050 ft.
Lee and Burnett's No. 1 Walker, 400 ft. from N line and 2,180 ft. from E line of survey, M. Dillard Sur.	Drlg. 3,255 ft.
Magnolia Petroleum Co.'s No. 3 L. E. Orms, 6,440 ft. from N line and 4,910 ft. from W line of survey, W. H. Castleberry Sur.	Drlg. 2,830 ft.
Manzoili and Reynolds' No. 1 Mrs. Compton, 30 ft. from S line and 150 ft. from W line of Blk. No. 30, H. B. Hokit Sur.	Swabbing; T.D. 3,645 ft.
Mullendore and Berry's No. 3 G. Davis, 1,700 ft. from most northerly S line and 3,750 ft. from most easterly E line of survey, W. P. Chisum Sur.	Rig up.
W. H. Peckham's No. 1 J. W. Akin, 147 ft. S and 856 ft. E of SW cor. of Empire's Akin lease, W. H. Castleberry Sur.	Waiting on cmt. to set; T.D. 3,508 ft.
Pilot Oil Co.'s No. 1 Whatley, 1,350 ft. from S line and 160 ft. from W line of survey, William Robinson Sur.	Swabbing; T.D. 3,528 ft.
Powell & Irion's No. 1 Godfrey, 900 ft. from N line and 2,350 ft. from E line of survey, M. Dillard Sur.	Drlg. 1,475 ft.
Rabbit Creek Oil Co.'s No. 2 Elder, 350 ft. from W line and 78 ft. from S line of survey, John Wilkerson Sur.	Waiting on cmt. to set 3,507 ft.
A. D. Robinson's No. 1 Hilburn Estate, 1,199 ft. from S line and 5,320 ft. from W line of survey, J. Wilkerson Sur.	Drlg. 2,157 ft.
Rosier and Pendleton's No. 7-A Nicholson, 2,050 ft. from N line and 330 ft. from E line of survey, M. Mann Sur.	T.D. 3,676 ft.; swabbed dry; small show oil; S.D.
Rosier and Pendleton's No. 6-A Satterwhite, 1,720 ft. from N line and 2,680 ft. from W line of survey, D. Sanches Sur.	Coring 3,660 ft.
Sinclair Prairie Oil Co.'s No. 1-B A. A. King, 330 ft. from N line and 193 ft. from W line of lease, M. McCurry Sur.	Coring; T.D. 3,430 ft.

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Four New Locations Announced in Ector County; Thirty Are Made in Wichita Falls District

By L. E. BREDBERG
Fort Worth Bureau, The Oil and Gas Journal

FORT WORTH, Tex., July 17.—One test was abandoned in Ector County during the week and four more locations were announced. Rig is up on the Broderick and Calvert location mentioned last week. Activities picked up considerably in the Cowden and Addis producing areas principally because of the Humble Pipe Line Co. and Elliott Cowden reaching terms on right of way charges which held up construction of a 24-mile 6-inch line for several weeks.

This line will serve both areas and connect with the Cowden wells to the north, two of which have been producing for almost three years, the oil going to storage. The Addis discovery well is connected by a short line to a loading rack on the Texas & Pacific Railroad from whence the oil is shipped to a refinery at Big Spring.

Cherry and others' No. 1 Johnson in Section 41, Block 43, Township 1s, T.&P. Survey, was apparently too far west. It was abandoned this week at a total depth of 4,460 feet.

Gilpin and others' location in Section 32, Block 43, Township 1n, T.&P. Survey, will be an interesting test, being approximately 1¼ miles west of Stanolind Oil & Gas Co.'s No. 2 Cowden, the second producer in the Cowden area. Landreth Production Co. and Lane have staked location on the Cochran ranch approximately three-quarters of a mile south of two small producers in which the former has an interest.

Stanolind Oil & Gas Co. also made location for another test in Section 26, Block 43, Township 2s, T.&P. Survey, in the Addis area. This is north of a small producer it recently completed in this section.

New Ordovician Test

Another Ordovician test is planned for the Permian Basin. John Emch of San Angelo has assembled block and completed details for test to be drilled near Stiles in northern Reagan County. An Ordovician test for Glasscock County was mentioned last week. John I. Moore of San Angelo has assembled that block and has sold several 746.3-acre units of the 5,970.2-acre block. Tentative location of this test is approximately 1½ miles west of two small producers on the McDowell ranch which are producing from lime around 2,540 feet.

Water at Big Lake

A report of water conditions of Group No. 1 Oil Corp.'s Ordovician wells in the Big Lake Field, Reagan County, has already been published. Big Lake Oil Co.'s deep wells in this same area, also have suffered the same conditions. No. 1-C is shut down indefinitely at 9,562 feet appearing as dry. No. 2-C has been producing 143 bbls. of oil and 900 bbls. of water per day; No. 3-C is making 40 bbls. of oil with no water; No. 6-C was reported dead, it was making 931 bbls. of water. This well is in the center of the northern group of deep wells. No. 10-C has been making water; it is on the northeast side of the deep well area. No. 4-C made 248 bbls. of oil with 30 bbls. of water; No. 5-C has made 568 bbls. of oil and 2,106 bbls. of water per day. Two other wells, Nos. 7-C and 8-C have been making 50 bbls. of oil each, and 60 bbls. of water daily.

Approximately 19,000,000 bbls. of oil have been taken out of these deep wells, an exceptionally good recovery per well, and far better than wells make in the majority of pools, consequently the present showings of these wells are not to be deplored after such a recovery.

Ward County

Gulf Production Co.'s No. 32 O'Brien, in Section 61, Block F, appears to be a northeast edge well for the north O'Brien Pool in Ward County. It topped the pay at 2,605-2,770 feet and has been making around 20 bbls. per day, a much smaller well than the majority of the producers in this area.

Fisher County

Southern Oil Corp.'s No. 1 Beavers, in Section 193, B.B.B.&C. Survey, Fisher County, topped the lime pay at 3,099 feet and is shut down at 3,103 feet. It has been swabbing 60 bbls. per day promising a one-half mile north extension for this area.

Pecos County

Reports from the field stated that Pure Oil Co. is contemplating drilling its No. 1 Harrison, in Section 203, Block 3, T.&P. Survey, Pecos County, to 8,000 feet. The well was drilled on a large surface structure about three years ago, shutting down at 5,000 feet with pipe in the hole. The test is near Chancellor, approximately 20 miles southwest of Fort Stockton. This will be an exceptionally interesting Ordovician test if it is carried to the projected depth.

University Lands

On July 31 the State will hold a sale of University lands in Crockett and Upton Counties. Sections 6, 7, 10, 11, 18 and 19, in Block 14, are in Crockett County, and Section 4, 5, 6, 7, 8 and 9, in Block 15, are in Upton County.

RANGER AND WICHITA FALLS

Anzac Oil Corp. and Maxwell & Parks are rigging up to drill an Ellenberger test on the Will Johnson tract in Section 146, C.H.&H.R.R. Survey, 4½ miles southeast of Oplin in Callahan County. The test is 2,000 feet southwest of Empire Gas & Fuel Co.'s old Ellenberger test which showed for a good well and is still producing from 15 to 20 bbls. per day.

Work has picked up considerably in the Wichita Falls district during the past two weeks. Locations reached the 30-mark this week, 10 over the previous week.

PANHANDLE DISTRICT

The railroad commission held a hearing at Amarillo on July 15 at which time recommendations for a higher allowable were received, and later granted. The district's allowable was stepped up from 50,000 to 60,000 bbls. per day. The demand has grown to around 55,000 bbls. per day and increasing it to an extra 5,000 bbls. will allow sufficient elasticity to handle increased demands as they are made known.

The highest potential well in the field was named as Skelly Oil Co.'s No. 6 Saunders in the Saunders Pool, Gray County. W. B. Hamilton, deputy supervisor for the commission, stated the potential of this well is 5,764 bbls. per day, and it has an allowable of 1,000 bbls. per day. He estimated the average per well allowable for the field is 32 bbls. New potential tests are not to be made, many operators holding against such a move at this time. Several permits for gasoline extraction plants were also submitted to the commission at the hearing.

Field activities have increased somewhat in this district, but are not expected to show much gain until the price muddle is cleared, and possibly a higher price is granted.

Wildcat Operations in West Texas

Week Ending July 17

Company, well, farm name, section and block—	Remarks
CONCHO COUNTY	
Beasley et al's No. 1 Waring Estate, 460 ft. from N and E, Sec. 163, T.&N.O. Sur.	T.D. 2,586 ft.; pumping 5 bbls oil per day and some water
CRANE COUNTY	
Loffland Bros.' No. 1 Tubbs, 1,334 ft. from N line and 1,326 ft. from W line of Sec. 9, Blk. B-27, P.S.L. Sur.	Drlg. 910 ft.
CULBERSON COUNTY	
Miller Bros.' No. 1 fee, 1,980 ft. from N line and 660 ft. from E line of Sec. 61, Blk. 97, P.S.L. Sur.	Drlg. 1,380 ft.
ECTOR COUNTY	
Broderick & Calvert et al's No. 1 E. F. Cowden, 2,240 ft. from E line, 330 ft. from S line of Sec. 25, Blk. 44, Twp. 2s, T.&P. Sur.	Rig up.
Landreth Prod. and The Texas Company's No. 1 Holt, 660 ft. from S line and 2,025 ft. from E line of Sec. 16, Blk. 43, Twp. 1s, T.&P. Sur.	Prepare to run tubing and test with acid; T.D. 4,450 ft.
Thomas et al's No. 1 Edwards, 330 ft. from S, 2,310 ft. from E, Sec. 38, Blk. 43, Twp. 3s, T.&P. Sur.	Set casing at 3,327 ft.
Fred Turner's No. 1-A Addis, 1,650 ft. from N line and 2,200 ft. from E line of Sec. 35, Blk. 45, Twp. 2s, T.&P. Sur.	Flowing about 70 bbls. oil per day through 1-in. choke; T.D. 4,113 ft.
Waggoner and Western Corp.'s No. 1 F. U. Addis, 1,650 ft. from N, 990 ft. from W line of Sec. 35, Blk. 54, Twp. 2s, T.&P.R.R. Sur.	T.D. 3,970 ft; C.O.
FISHER COUNTY	
Cranfill & Reynolds' No. 3 George, 330 ft. from N and W lines of NE of Sec. 200, Blk. 1, B.B.B.&C. Sur.	Top lime 3,096-98 ft; drlg. 3,098 ft.
Southern Oil Co.'s No. 1 Beavers, 330 ft. from W and 660 ft. from S of S half of SW Sec. 193, B.B.B.&C. Sur.	T.D. 3,103 ft.; swabbing 60 bbls. daily.
HOWARD COUNTY	
Oppenauer et al's No. 1 Leatherwood, C of SE of NW, Sec. 25, Blk. 33, Twp. 1n, T.&P. Sur.	Material on ground
L. C. Harrison's No. 4 L. C. Denman, 2,370 ft. from the E line and 1,325 ft. from S line of Sec. 10, T.&P.R.R. Sur., Blk. 30, Twp. 1s	C.O. and R.U. to pump.
JONES COUNTY	
Dyer's No. 1 Odom, 200 ft. from S and 170 ft. from W of N 320 acres, G. Zumwalt Sur.	Fishing 480 ft.
LOVING COUNTY	
Oppenauer Drlg. Co.'s No. 1-A Victor, 330 ft. from SW and 335 ft. from SE of NW of N half Sec. 4, Blk. 2, W.&N.W. Sur.	Rigging up standard tools
PECOS COUNTY	
A. & M. Pet. Co.'s No. 1 University, 1,725 ft. from S line and 330 ft. from E line of Sec. 31, Blk. 16, University Sur.	Drlg. 1,578 ft.
Kimberlin et al's No. 1 B. D. Gregg, 2,455 ft. from NW and 150 ft. from NE, Sec. 101, Blk. 10, H.&G.N. Sur.	S.D. 1,422 ft.
REAGAN COUNTY	
Big Lake Oil Co.'s No. 10-C University, 2,025 ft. from S and 375 ft. from W, Sec. 25, Blk. 9	Flowed 3,169 bbls. of oil on July 11; T.D. 8,550 ft.
Big Lake Oil Co.'s No. 11-C University, 2,300 ft. from S line and 2,140 ft. from E line, Sec. 12, Blk. 2, University Sur.	Drlg. 7,988 ft.

(Continued on Page 35)

COMPLETIONS IN WEST TEXAS

Ector County

Cherry and others' No. 1 Johnson, small oil shows from 4,020-25, 4,051-56 and 4,315-21 feet, one bailer of sulphur water per hour from 4,450-55 feet, dry and abandoned, total depth 4,460 feet.

Howard County

Continental Oil Co.'s No. 3 Eason, top pay 2,430-50 feet, initial production 576 bbls. of oil per day on proration test, pumping, total depth 2,460 feet; No. 5 Overton, top pay 2,432-41 feet, initial production 624 bbls. of oil per day pumping on proration test, total depth 3,445 feet.

Pecos County

Doctor Eppenauer's No. 1 White, dry and abandoned, total depth 2,000 feet.

Ward County

Bradford's No. 1 Carson, estimated 4,000,000 feet of gas at 2,170 feet, total depth 2,225 feet. Gulf Production Co.'s No. 18 Hutchings, top pay 2,560-75 feet, increases at 2,620 and 2,634-42 feet, initial production 60 bbls. of oil per day flowing through tubing, total depth 2,751 feet; No. 32 O'Brien, top pay 2,704-12 feet, initial production 20 bbls. per day flowing, total depth 2,770 feet.

COMPLETIONS IN PANHANDLE

Childress County

Massey and Peters' No. 1 O. L. Tucker, temporarily abandoned, total depth 350 feet.

Gray County

Doniphane Oil Co.'s No. 1 Cobb, oil pay 3,345-84 feet, shot 180 quarts from 3,324-84 feet, swabbed 188 bbls. of oil after shot, total depth 3,384 feet. Robert Dunlop's No. 1 Priest, dry and abandoned, total depth 3,125 feet. Phillips Petroleum Co.'s No. 5 Palmer (old well recompleted), old total depth 2,865 feet, initial production 375 bbls., new total depth 3,025 feet; No. 6 Palmer (old well recompleted), old total depth 2,870 feet, new initial production 361 bbls. daily on proration test, pumping, total depth 2,990 feet; No. 7 Palmer (old well recompleted), old total depth 2,887 feet, new total depth 3,003 feet, initial production 353 bbls. of oil daily on nine-day proration test. Sinclair Prairie Oil Co.'s No. 1-E Combs-Worley (old well recompleted), old total depth 3,084 feet, new total depth 3,193 feet, initial production 92 bbls. of oil and 25 bbls. of water on pump.

Refining Cracked Gasoline From High Sulphur Crude

(Continued from Page 12)

15 minutes at 40° F. or for 45 minutes at room temperature when there is little danger of the distillate losing light ends. Decant the oil from the sludge.

3. Wash the oil in a separatory funnel with two portions of water present in approximately a 1 to 1 volume ratio, shaking each portion for about five minutes. Use ice in small quantities with the water in the case of the light distillates. Heavy distillates will require a settling period of 5 to 15 minutes after the wash. Draw the water from the oil.

4. Treat the oil with 16° Be. caustic solution by vigorous shaking in a separatory funnel for 10 minutes, allow to settle until there is no emulsion in the bottom of the funnel, and drain the caustic solution off.

5. Repeat the water washing of the oil as described under Section 3 and drain. The oil is ready for steam distillation.

B—Simple Acid-Plumbite Method

This method is the same as procedure A with the exception that 16° Be. plumbite is used instead of caustic as described in Section 4.

C—Split Plumbite Method

1. Shake the oil with 30° Be. plumbite in a separatory funnel for 10 minutes. Allow the sludge to settle to the bottom for 15 minutes and drain.

2. Wash the oil with water, and ice if necessary, as described in Section 3 of Method A.

3. Dry the oil by filtering and follow the complete procedure as outlined in Method B.

D—Split Caustic Method

1. Shake the oil with 30° Be. caustic soda in a separatory funnel for 10 minutes. Allow the sludge to settle to the bottom for 15 minutes and drain.

2. Wash the oil with water, and ice if necessary, as described in Section 3 of Method A.

3. Dry the oil by filtering, and follow the complete procedure as outlined in Method A.

E—Separate Treatment of Fractions of the Distillate

Fractionate the distillate into two or more fractions each of a varying sulphur content. Treat each fraction separately with a quantity of acid in proportion to the amount of sulphur present by one of the preceding methods. Neutralize each fraction and blend before rerunning.

F—Rerunning and Subsequent Treating of Finished Gasoline

1. Rerunning.

Charge the neutralized oil to a three-necked flask fitted with a thermometer, an 18-inch Hempel fractionating column, and a suitable steam inlet, and apply heat to the flask until the oil temperature is above 220° F. Allow the steam to enter and raise the temperature of the oil as quickly as possible to 350° F. Remove the required percentage to make the desired endpoint, keeping the temperature of the oil at or slightly below 350° F.

2. Endpoint.

The amount of product recovered is usually less than the percentage indicated on either Hempel or Engler distillations. This is due to the greater distillation loss in the rerun operation as well as to the polymerization that has occurred in the treatment.

3. Treatment of the finished gasoline.

(a) The gasoline coming off the still contains water and some sulphur dioxide. Remove the sulphur dioxide by shaking the oil with a 3 per cent solution of caustic. It is more desirable to use dilute caustic solution, because if the gasoline is sour, a concentrated solution will affect its color, probably owing to the formation of sodium mercaptide. Wash the oil with an equal volume of water and drain. Filter the oil into a bottle for drying.

(b) The amount and concentration of plumbite required for sweetening depends upon the mercaptan content of the gasoline, but generally 6 per cent by volume of an 8° B. plumbite shaken for 10 minutes is sufficient. A test should be made for sweetening before a sulphur break is attempted. Sulphur is added in suitable small quantities to accomplish a break. Care must be taken in breaking down the lead mercaptide with sulphur, as too much will result in a corrosive and color unstable gasoline.

In the acid treating of a distillate, several distinct and definite losses are encountered other than those due to handling. These are generally referred to as solution, polymerization, and distillation losses. Each may be readily determined and give some index of the nature of the losses to be met in the plant. The distillation loss occurs during the rerunning operation and may be determined in the usual manner by the difference between the oil charged to the still and the gasoline recovery plus the bottoms. The following method is used to determine the solution and polymerization losses.

1. Solution Loss.—The acid treated oil is allowed to settle for 15 minutes at 40° F. The supernatant oil is decanted from the sludge and measured. The sludge is drained off into a graduated cylinder and allowed to settle overnight. The additional quantity of oil on top of the sludge is added to that decanted from the sludge. The solution loss is obtained by the difference of this volume and the volume of the oil treated. This value is calculated to a percentage basis.

2. Total Loss.—A 100 c.c. distillation in a 250 c.c. round bottom flask is made through a 4-inch Hempel column on the untreated oil noting the percentage distilled over at any chosen temperature, i.e., 375° F. The treated oil is then distilled in the same flask and column to the same temperature again noting the percentage distilled. From these values the total loss, and the solution loss plus polymerization loss, may be calculated as follows:

$$\text{Total loss} = A - (B \times [100 - S])$$

Where

A = per cent in untreated oil.

B = per cent in treated oil.

S = per cent in solution loss.

The polymerization loss is then equal to the total loss from which the solution loss has been subtracted or polymerization loss equal total loss minus solution loss.

DISCUSSION OF RESULTS

A—Simple Acid-Caustic Method

The simple acid-caustic method is at present extensively used for the treatment of cracked distillates. With distillates not demanding large quantities of acid for desulphurization, the procedure is quite satisfactory.

The cracked distillate produced from the Oregon Basin crude oil does not readily respond to this method of treatment using either 93 or 98 per cent sulphuric acid (Table 1). The use of 20 pounds of 98 per cent sulphuric acid per barrel reduces the sulphur content from 0.63 to 0.22 per cent with accompanying high losses of oil and antiknock properties. It is calculated that 35 pounds of 93 per cent and 32 pounds of 98 per cent sulphuric acid per barrel would be required to effect a sulphur reduction to 0.10 per cent. The cracked distillates from each of the two blends are more easily treated yet require excessive quantities of acid with attendant high losses.

B—Split-Caustic Method

The caustic wash preceding the acid treatment decreases the amount of sulphur in the cracked distillate providing it is present as hydrogen sulphide. The lower boiling mercaptans are also removed due to their solubility in caustic soda. Improved desulphurization of each of the cracked distillates over the simple acid-caustic treatment is obtained by the use of the split caustic method (Table 1).

The Oregon Basin cracked distillate with 14 pounds of 98 per cent sulphuric acid per barrel by the split-caustic method results in approximately the same sulphur reduction as 30 pounds of 98 per cent sulphuric acid with the simple acid-caustic method. Similarly, for the same desulphurization, a reduction from 30 pounds to 16 pounds of 93 per cent sulphuric acid per barrel and from 18 pounds to 12 pounds of 93 per cent sulphuric acid per barrel, respectively, are obtained from each of the blends when using the split-caustic treatment. A proportionate reduction in losses results.

C—Split Plumbite Method

The preliminary sodium plumbite wash decreases the amount of sulphur in the cracked distillate providing it is present as hydrogen sulphide or free sulphur and mercaptans. Plumbite readily reacts with the mercaptans to form lead mercaptides which are decomposed by the free sulphur into lead sulphide and disulphides[5]. For this reason it is superior to the split caustic method which may not affect the free sulphur content.

The split plumbite treatment, with each of the cracked distillates investigated, yields slightly better desulphurization than the split caustic method (Table 1).

TABLE 2

Stock— Treat	100% Oregon Basin cracked distillate None	15% Cat Creek, 85% Oregon Basin None	15% Cat Creek 15% Osage, and 70% Oregon Basin None	15% Cat Creek 15% Oregon Basin Caustic washed
% Sulphur original	0.63	0.51	0.43	0.28
0-10	0.46	0.37	0.36	0.07
10-20	0.43	0.35	0.36	0.16
20-30	0.42	0.34	0.33	0.24
30-40	0.56	0.45	0.34	0.32
40-50	0.58	0.45	0.38	0.37
50-60	0.61	0.49	0.42	0.42
60-70	0.67	0.54	0.44	0.45
70-80	0.74	0.59	0.48	0.48
80-90	0.81	0.65	0.52	0.52
90-100	0.90	0.72	0.77	0.77

D—Effect of Temperature on Sulphur Reduction

California cracked distillates have been effectively desulphurized by treatment at low temperatures[2]. With the Oregon Basin cracked distillate no increased sulphur reduction is obtained with the use of the lowered temperature (0° F.) as compared to the simple acid-caustic treatment at 40° F. The split plumbite treatment also shows no greater desulphurization at 0° F. (Table 1).

However, decreased losses are obtained at the lower temperature which may allow, in certain instances, an economical operation in commercial practice.

E—Treatment of Various Fractions of the Distillates

A sulphur distribution of the cracked distillates indicates that successive overhead fractions contain increasingly larger quantities of the sulphur compounds. These distributions are shown in Table 2.

The results of the treatment of various fractions of distillates show in general improved desulphurization when compared with treatment of the entire distillate.

Summary and Conclusions

1. The split plumbite or split caustic method of sulphuric acid treatment as described in the present paper shows very marked advantages in the desulphurization of cracked distillates when compared with the simple acid caustic treatment or simple acid plumbite treatment in respect to the degree of desulphurization, losses, and the amount of acid required.

2. The separate treatment of individual fractions of the cracked distillate shows improved results in respect to desulphurization when compared with the treatment of the entire distillate.

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[2]Halloran, The Oil and Gas Journal, 26, No. 29, 36 (1927).
[3]Smith & Lane, Bureau of Mines Survey No. 291.
[4]Thorne & Murphy, Bureau of Mines Technical Paper No. 538.
[5]Wood, Lowy, and Faragher, Ind. Eng. Chem., 16, 1,116-1,120 (1924).

East Central Texas Wildcats

(Continued from Page 32)

A. L. Slaughter's No. 1 R. B. White, 480 ft. from N line and 30 ft. from E line of survey, C. H. Alexandria Sur. ..... Fishing; T.D. 2,871 ft.
Stanolind Oil & Gas Co.'s No. 4 Jones, 1,068 ft. N and 378 ft. W of SE cor. of 30.58-ac. lease, G. W. Hooper Sur. ..... Rig up.
Sun Oil Co.'s No. 8 A. G. Morton, 330 ft. from W line of lease and 660 ft. S of No. 3, S. Baggett Sur. ..... Drlg. 2,709 ft.
Superior Oil Co.'s No. 14-A Pritchard, 3,150 ft. from S and 100 ft. E of most southerly SW cor. of G. R. Rains Sur., F. W. Johnson Sur. ..... Rig up.
Sutton & Hawkins' No. 6 Whittaker, 1,730 ft. from N line and 480 ft. from E line of survey, C. H. Alexandria Sur. ..... Drlg. 3,302 ft.
Wise and Jackson's No. 5 Rosa Corbin, 5,860 ft. from S line and 2,250 ft. from E line of survey, H. Edwards Sur. ..... S.D. 3,225 ft.
Yeager et al's No. 2 Howard, 90 ft. from N line and 2,350 ft. from E line of survey, Mary Scott Sur. ..... Drlg. 1,960 ft.

HENDERSON COUNTY

McElreath and Suggett et al's No. 1 Ferguson, 330 ft. out of most southerly NW cor. of 251.5-ac. tract, William P. Wyche Sur. ..... Spudding.

HOPKINS COUNTY

Culberson & Lynch's No. 1 Louis Stribling, 150 ft. from NW cor. of tract and lease, Thomas Norris Sur. .. Rig up
Delworth-Hogan and Ashby's No. 1 Logan, 350 ft. from S and E lines of 175-ac. tract, A. L. Wetman Sur. .. Drlg. 2,660 ft.
Pete Wiggins et al's No. 1 Fee, 400 ft. from S line and 567 ft. from W line of 48-ac. tract, Nacogdoches University Lands Sur. ..... Drlg. 4,510 ft.

HUNT COUNTY

Solar Exploration Co.'s No. 1 Smith, 210 ft. from E line and 370 ft. from S line of lease, William Glass Sur. ..... T.D. 1,500 ft.

KAUFMAN COUNTY

J. M. Scott et al's No. 2 Pannill, 3,550 ft. from NE line and 6,000 ft. S of Texas Midland Railroad, A. Cherino Sur. ..... Drlg. 100 ft.

LEON COUNTY

Bateman et al's No. 1 A. C. Carlyle, 150 ft. out of NE cor. of survey, Mary Elem Sur. ..... Drlg. 5,099 ft.
Shell Petroleum Corp.'s No. 1 Begga, center of 123.5-ac. tract, John Carter Sur. ..... Drlg. 3,600 ft.

LIMESTONE COUNTY

C. C. Curtis et al's No. 1 Emma Daniels, 150 ft. from W line and 150 ft. from S line of 42.5-ac. tract in Pedro Varela Sur. ..... Waiting on cmt. to set 60 ft.

RUSK COUNTY

Abercrombie and Harrison's No. 2 Cantrell, 500 ft. S of No. 1 Cantrell, R. W. Smith Sur. ..... Rig up.
Atlantic Oil Producing Co.'s No. 12 Brightwell, 153 ft. from W line and 530 ft. from N line of survey, R. W. Smith Sur. ..... Drlg. 2,325 ft.
Bristol-Duncan-White's No. 1 Womack, 2,760 ft. from N line and 80 ft. from E line of survey, I. Moore Sur. ..... S.D. 240 ft.
Combined Oil Co.'s No. 14 G. W. Eaton, 330 ft. from S line and midway between Nos. 6 and 9, F. Cordova Sur. ..... Testing; T.D. 3,735 ft.

Cordova Union Oil Co.'s No. 1-D C. O. Christian, 1,490 ft. from N line and 1,880 ft. from W line of survey, D. Clark Sur. ..... Waiting on standard rig; T.D. 3,740 ft.

Cullen Oil Co.'s No. 1 Giles, 3,610 ft. from N line and 1,900 ft. from E line of survey, M. J. Pru Sur. .... Waiting on cmt. to set 3,716 ft.

Dyck Oil Co.'s No. 4 John Bell, 360 ft. from N line and 1,650 ft. from E line of survey, S. P. Hollingsworth Sur. ..... Drlg. 1,418 ft.

Griffin & Barnes' No. 1 fee, 12 ft. from S and W lines of 3-ac. tract, J. B. De Cadena Sur. ..... Waiting on cmt to set

Gulf Production Co.'s No. 8-C Mayfield Co., 3,110 ft. from W line and 3,530 ft. from N line of survey, J. B. De Cadena Sur. ..... Waiting on cmt. to set 3,642 ft.

Gulf Production Co.'s No. 3 C. F. O'Quinn, 764 ft. from S line and 2,920 ft. from E line of survey, George Berry Sur. ..... T.D. 3,750 ft.

H. L. Hunt's No. 5-C Joe Lee, 710 ft. from S line and 330 ft. from E line of lease and survey, J. Lindley Sur. ..... Derrick.

H. L. Hunt's No. 3 B. F. Maxwell, 390 ft. from N line and 1,500 ft. from E line of survey, R. H. Penny Sur. ..... Rig up.

W. B. Hamilton's No. 6 L. B. Gambrell, 330 ft. from N and E lines of 54-ac. tract and survey, R. McAnnulty Sur. ..... Waiting on cmt. to set; T.D. 3,650 ft.

Jordan & Ramsey's No. 1 L. W. Prior, 330 ft. from N line and 407 ft. from E line of 53-ac. lease, Walker Pettit Sur. ..... T.D. 2,841 ft.

Lion Oil & Refining Co.'s No. 11-B H. Brooks, 4,960 ft. from S line and 1,410 ft. from E line of survey, M. J. Pru Sur. ..... Derrick.

Martin and Cockburn's No. 4 J. P. Cansler, 1,620 ft. from N line and 1,130 ft. from W line of survey, E. Collard Sur. ..... Rig up.

George B. McCamey's No. 2 J. Minchew, 1,600 ft. from S line and 170 ft. from E line of survey, H. B. Dance Sur. ..... Derrick.

Charles McDonald et al's No. 2 Brightwell, 700 ft. from N line and 2,200 ft. from E line of survey, R. W. Smith Sur. ..... Drlg. 1,525 ft.

Mid-Kansas Oil & Gas Co.'s No. 1 Robert Van Zandt, 1,133 ft. S and 358 ft. E of SW cor. of Stanolind-Pure, Ras Lacy 100-ac. tract, J. H. Sparks Sur. .... Waiting for gauge; T.D. 3,616 ft.

Mid-Kansas Oil & Gas Co.'s No. 14 E. E. Moores, 140 ft. from S line and 2,260 ft. from E line of survey, M. J. Pru Sur. ..... Rig up.

Mid-Kansas Oil & Gas Co.'s No. 15 E. E. Moores, 3,720 ft. from E line and 660 ft. from N line of survey, J. B. De Cadena Sur. ..... Drlg. 2,997 ft.

Walker Murray et al's No. 1 W. H. Arnold, 330 ft. from S and W lines of 50-ac. tract, Levi N. Sparks Sur. ..... Waiting on cmt. to set; T.D. 3,723 ft.

Patterson Drlg. Co.'s No. 3 Brock Estate, 2,320 ft. from N line and 100 ft. from E line of survey, R. W. Smith Sur. ..... Derrick.

Rodgers & Rodgers' No. 2 A. J. and D. F. Deason, 2,209 ft. from S line and 2,340 ft. from E line of survey, M. J. Pru Sur. ..... Waiting on cmt. to set; T.D. 3,692 ft.

Rodgers et al's No. 1 D. Bradford, 3,490 ft. from S line and 5,410 ft. from W line of survey, Juan Ximenes Sur. ..... Swabbing; T.D. 3,580 ft.

Standard of Kansas' No. 5 M. L. Thompson, 330 ft. from E line and 3,310 ft. from N line of survey, I. Moore Sur. ..... Waiting on cmt. to set; T.D. 3,600 ft.

Sun Oil Co.'s No. 11 J. R. Beall, 6,320 ft. from S line and 4,400 ft. from W line of survey, W. P. Chisum Sur. ..... Derrick.

Tide Water Oil Co.'s No. 6 Leverett, 330 ft. from S line and 1,560 ft. from E line of lease and survey, W. W. Simms Sur. ..... Derrick.

Turman Oil Co.'s No. 7 A. D. and V. F. Deason, 2,330 ft. from S line and 2,250 ft. from E line of survey, M. J. Pru Sur. ..... Swabbing; T.D. 3,775 ft.

Sam K. Vierson's No. 2 Jernigan, 170 ft. from S line and 1,380 ft. from E line of survey, R. W. Smith Sur. ..... S.D. 3,000 ft.

Weaver-Crim Corp.'s No. 3-B Bean, 333 ft. from S line and 1,370 ft. from W line of survey, Mary Cogswell Sur. ..... Derrick.

Wemack Oil Corp.'s No. 2 W. H. Arnold, 330 ft. from S and W lines of 112-ag. tract and survey, William Christian Sur. ..... Coring 3,618 ft.

SMITH COUNTY

British-American Oil Co.'s No. 5 M. L. Thompson, 3,290 ft. from N line and 1,830 ft. from E line of survey, I. Moore Sur. ..... Derrick.

Barney Carter's No. 2 T. O. Wright, 1,260 ft. from N line and 1,200 ft. from E line of survey, Juan Vargas Sur. ..... T.D. 2,795 ft.

H. L. Hunt's No. 11-A R. W. Fair, 1,130 ft. from S line and 330 ft. from W line of survey, R. McAnnulty Sur. ..... T.D. 1,170 ft.

Long Drilling Co.'s No. 3 G. A. Turner, D. W. Campbell Sur. ..... Derrick

Alex McCutcheon's No. 4 Stone, 890 ft. from N line and 960 ft. from W line of survey, D. Shaw Sur. .... Derrick.

Pine Grove Oil Co.'s No. 4 S. S. Cooke, 2,780 ft. from N line and 7,440 ft. from E line of survey, Juan Vargas Sur. ..... Testing; T.D. 3,729 ft.

UPSHUR COUNTY

Conservative Oil Co.'s No. 6 C. M. and V. Victory, 2,410 ft. from E line and 330 ft. from S line of survey, E. A. J. Evans Sur. ..... Waiting on cmt. to set; T.D. 3,650 ft.

W. V. Greer's No. 1 A. B. Mackey, 2,400 ft. from N line and 4,080 ft. from E line of survey, H. Pineda Sur. ..... S.D. 250 ft.

Humble Oil & Refining Co.'s No. 12 G. W. Johnson, 5,320 ft. from N line and 3,060 ft. from W line of survey, G. W. Hooper Sur. ..... Drlg. 1,965 ft.

Mudge Oil Co.'s No. 6-A S. E. Richardson, 1,750 ft. from N line and 1,480 ft. from E line of survey, D. Ferguson Sur. ..... Rig up.

Peckham and Meadows' No. 1 L. P. League, 1,200 ft. from N line and 330 ft. from W line of survey, H. F. Rodgers Sur. ..... Rig up.

Sun Oil Co.'s No. 2 B. L. Loden, 5,360 ft. from N line and 1,050 ft. from W line of survey, G. W. Hooper Sur. ..... Drlg. 2,064 ft.

Twin Oil Co.'s No. 5 Bonner, 1,080 ft. from S line and 1,020 ft. from W line of survey, J. McRae Sur. ..... Drlg. 1,950 ft.

VAN ZANDT COUNTY

Everett Drilling Co.'s No. 1 L. Tunnell, 150 ft. out of SW cor. of 72.4-ac. tract, 4 miles SW of Van, M. Moss Sur. ..... Rig up.

Gulf Oil Co.'s No. 1 Gillentine, 150 ft. from S and E lines of E 4 acres of 42-ac. tract in Nacogdoches County School Land Sur. ..... S.D. 1,246 ft.

Petroleum Pipe Line Co.'s No. 3 Mrs. S. McGee, 650 ft. from S line and 150 ft. from W line of Blk. No. 17, William Daniels Sur. ..... Waiting on cmt. to set 1,170 ft.

Pure Oil Co.'s No. 4 J. M. Martin, 525 ft. W of E line and 200 ft. N of S line of J. M. Martin Sur., J. Stephenson Sur. ..... Set surface csg.; T.D. 300 ft.

Ray Drilling Co.'s No. 1 J. W. Mallory, 1,150 ft. from S line and 150 ft. from W line of 217-ac. tract, John Walling Sur. ..... Derrick.

an Oil Association's No. 1 Tankersley, 200 ft. from E and 1,000 ft. from S of farm, L. Landers Sur. ..... Drlg. 1,284 ft.

Wildcat Operations in West Texas

(Continued from Page 33)

Big Lake Oil Co.'s No. 12-C University, 923 ft. from N, 740 ft. from E line of Sec. 12, Blk. 2, University land ..... Drlg. 1,820 ft.

Jontinental Oil Co.'s No. 4-B University, 1,300 ft. from S and 1,775 ft. from W, Sec. 34, Blk. 9 ..... Flowed 338 bbls. on July 10; T. D. 8,695 ft.

Continental Oil Co.'s No. 9-B University, 1,900 ft. from S line, 1,805 ft. W of E line of Sec. 39, Blk. 9, University Land Sur. ..... Drlg. 1,500 ft.

I. P. Williams et al's No. 1 Scott, 1,650 ft. from N and 330 ft. from W, Sec. 179, Blk. 1, T.&P. Sur. ..... Drlg. 2,260 ft.

RUNNELS COUNTY

ulton et al's No. 1 Dean, 5,475 ft. from NE and 1,048 ft. from NW in J. Heil Sur. No. 519 ..... S.O. 3,417-20 ft.; S.D. 3,600 ft.

SCHLEICHER COUNTY

Eastland Oil Co.'s No. 1 Joe Tisdale, Sec. 29, Blk. M, G.H.&S.A. Sur. ..... Drlg. 6,108 ft.

Wesner et al's No. 1 Nicks, 2,310 ft. from S and 2,302 ft. from E of Sec. 77, Blk. LL, T.C. Sur. ..... T.D. 6,620 ft.; plugged with baller in hole.

UPTON COUNTY

Gulf Prod. Co.'s No. 103 McElroy, 1,980 ft. from S and 660 ft. from W, Sec. 197, Blk. F, C.C.S.D.&R.G.N.G. .... Coring 4,560 ft.

WARD COUNTY

George Bentley et al's No. 1 C. Bergman, 330 ft. from NE line and 2,310 ft. from NW lines of Sec. 26, Blk. 5, H.&T.C. Sur. ..... Fishing for tools; T.D. 2,647 ft.

George Bentley et al's No. 1 A. Emory, 1,320 ft. from NE line and 2,310 ft. from NW line of Sec. 26, Blk. 5, H.&T.C. Sur. ..... T.D. 2,301 ft.

W. A. Black et al's No. 1 Ann B. Gordon, 990 ft. from NW and 330 ft. from NE lines of Sec. 4, Blk. 34, H.&T.C. Sur. ..... Fishing; T.D. 2,470 ft.

Ippenauer Drlg. Co.'s No. 1 University, 330 ft. from N and 440 ft. from E of S half of Blk. 16 ..... Drlg. 914 ft.

Gulf Prod. Co.'s No. 30 O'Brien, 990 ft. from S line and 660 ft. from W line of Sec. 6, Blk. F, G.&M.M.B.&A. Sur. ..... R.U. pumping equipment; T.D. 2,850 ft.

WINKLER COUNTY

Colonial Oil Co.'s No. 2 State Scarborough, 990 ft. from W and 102½ ft. N of the NE cor. of Sec. 1, School Blk. 77, located in Sec. 1, Blk. W.F. ..... Rig up.

Sid Richardson's No. 3 John Sealy, 2,310 ft. from the N line and 330 ft. from the W line of Sec. 94, G.&M.M.B.&A. Sur. ..... Derrick.

Wildcat Operations in Texas Panhandle

Week Ending July 17

CARSON COUNTY

Company, well, farm name, section and block—	Remarks
The Texas Co.'s No. 2-B Garner, 990 ft. N and E, Sec. 94, Blk. 4, I.&G.N. Sur.	Pumped 56 bbls. first 24 hrs. on proration test; T.D. 3,040 ft.

DEAF SMITH COUNTY

Western Union Oil Co.'s No. 1 Farwell, Sec. 18-3n-3e. .... S.D. 1,510 ft.

GRAY COUNTY

Charles Black's No. 1 fee, 330 ft. from W, 661 ft. from S line of SW Sec. 45, Blk. 25, H.&G.N. Sur. ..... O.W.D.D.; T.D. 2,965 ft.

Bell O. & G. Co.'s No. 1 Webb, 330 ft. from N and E lines of Sec. 61, Blk. 25, H.&G.N. Sur. ..... Cellar.

British American Oil Co.'s No. 3 Phillips, 330 ft. from S and W lines of W½ of E½ of Section 27, Block No. 3 I.&G.N. Survey ..... Rig up.

Continental Oil Co.'s No. 4 Finley, Sec. 82, Blk. 2-B, H.&G.N. Sur. ..... O.W.D.D.; T.D. 2,957 ft.

Danciger O. & R. Co.'s No. 3 Wright, 990 ft. from S, 330 ft. from W lines of Sec. 13, Blk. 3, I.&G.N. Sur. .. Rig up.

Denworth Oil Co.'s No. 2-B Webb, 330 ft. from N and W lines, SE NW Sec. 61, Blk. 25, H.&G.N. Sur. .... T.D. 2,639 ft; to test.

Gulf Production Co.'s No. 3-A Catlin, 330 ft. from S and W lines of Gulf lease in NE of Section 57, Block 3 I.&G.N. Survey ..... Swbd. 900 bbls. second 24 hrs. after shot; T.D. 3,153 ft.

Hendron et al's No. 1 Husselby, 330 ft. S and E of SW SW Sec. 11, Blk. A-9, H.&G.N. Sur. ..... Rig.

Mazda-Shell's No. 4 Coombs-Worley, 990 ft. from N line 330 ft. from E line, Sec. 35, Blk. 3, I.&G.N. Sur. Rig

Phillips Pet. Co.'s No. 7 Jackson, 990 ft. from E, 330 ft. from S lines of S½ SE Sec. 88, Blk. 2-B, I.&G.N. Sur. ..... Building rig.

Phillips Pet. Co.'s No. 1 Palmer, 330 ft. from S and E lines of E 80 acres of Sec. 31, Blk. 2-B, H.&G. N. Sur. ..... Old well to be drilled deeper; T. D. 2,816 ft.

Phillips Pet. Co.'s No. 3 Woods, 330 ft. from S and W lines of SW of Sec. 13, Blk. 3, I.&G.N. Sur. .... Old well to be drilled deeper; T. D. 2,874 ft.

Sinclair Prairie Oil Co.'s No. 3 P. A. Coomley, 1,800 ft. from S, 2,613 ft. from W lines of S 246 acres of Sec. 57, Blk. 3, I.&G.N. Sur. ..... Cellar.

The Texas Co.'s No. 4 Brown, 330 ft. N, 990 ft. W of W½ Sec. 137, Blk. 3, I.&G.N. Sur. ..... Pumped 66 bbls. first 10 hrs. on pump; T.D. 3,264 ft.

Warner Oil Co.'s No. 1 Webb, 660 ft. from S and W of W 80 of N½ Sec. 42, Blk. 25 ..... T.D. 2,365 ft.

HUTCHINSON COUNTY

Badger Oil Co.'s No. 5 Lewis, 2,278 ft. from S, 330 ft. from W, Sec. 18, Blk. L, E.L.&R.R. Sur. ..... Swbd. 120 bbls. first 24 hrs. after shot; T.D. 3,946 ft.

Dixon Creek Oil Co.'s No. 1 Halle, 660 ft. east of Alexander's No. 1 Cockrell, Sec. 4, Blk. M-21, T.C.R.R. T.D. 3,055 ft; prepare to shoot.

E. W. Means et al's No. 1 Pond, 330 ft. S and E, N½ of E 165½ acres, Sec. 3, Blk. M-21, T.C.R.R. Sur. Drlg. 2,700 ft.

H. Stekol's No. 4 G. A. Whittenburg, 450 ft. from N line, 990 ft. from W line, Sec. 35, Blk. M-33, T.C. R.R. Sur. ..... T.D. 3,032 ft; C.O. to test.

RANDALL COUNTY

Woolsey & Devore's No. 1 Below, 330 ft. N and 1320 ft. E of NE, Sec. 85, Blk. 2, A.B.&M. Sur. ..... Drlg. 2,420 ft.

WHEELER COUNTY

Bell O. & G. Co.'s No. 1 Evans, 330 ft. N and E of NW Sec. 51, Blk. 24, H.&G.N. Sur. ..... Drlg. 2,428 ft.

Martin & Dubose's No. 1 Grogan, C NE Sec. 57, Blk. 23, H.&G.N. Sur. ..... Drlg. 965 ft.

Mid-Kansas O. & G. Co.'s No. 1 Husselby, 330 ft. from S and E lines of SW Sec. 70, Blk. 24, H.&G.N. Sur. .. Rig up.

Rogers & Harner's No. 1 J. O. Clark, 990 ft. S and W of Sec. 6, Blk. 24, H.&G.N. Sur ... Rig

The Texas Co.'s No. 2 Bentley, 330 ft. N and W of W½ of SW¼, Sec. 42, Blk. 24, H.&G.N. Survey .... T.D. 2,360 ft; pay 2,345-60 ft.; swbd. 98 bbls. oil first 24 hrs.

Open Important Logan County, Oklahoma, Pool With 5,000-Bbl. Well in the Wilcox Sand

By W. A. SPINNEY
Staff Correspondent, Oklahoma Fields

The outstanding oil development in Oklahoma during the week was the discovery of what is considered a major producing pool in western Logan County, near Crescent. Gypsy Oil Co. and Carter Oil Co.'s No. 1 Miller, C NE SE Section 28-17-4w, is believed to have formed another link in the chain of pools in the Nemaha mountain range, which has yielded some of the important oil pools in the State. The well as it stands is estimated at 5,000 bbls. a day with 15,000,000 feet of gas a day from Wilcox sand. A production test is expected to be made as soon as tankage is erected and a pipe line connection is made to the tanks.

The daily average production of the principal pools in the State for the week ending July 15 was as follows:

Pool—	Week ending July 15	Previous week
Bowlegs	11,835	12,105
Bristow-Slick	11,150	11,200
Burbank	10,100	10,175
Carr City	9,430	9,100
Earlsboro	11,830	10,900
East Earlsboro	17,730	18,235
South Earlsboro	1,585	1,325
Little River	18,380	16,830
East Little River	1,130	1,005
Oklahoma City	264,105	253,980
Seminole City	10,775	10,995
Tatums	10,500	10,500
Total	375,550	366,350
Others	209,250	207,255
Total State	587,800	573,605

The Oklahoma Corporation Commission is expected to issue orders in the matter of the opening of wildcat pools in the State early this week, it was indicated at the conference on Saturday, July 15. Evidence in the cases was presented to the commission on Thursday and Friday. Due to the rush of work pending before the commission on conservation measures, some of the orders have been delayed. The new pool in southeastern Noble County, the Fish Pool, Keokuk Falls Pool, and the Calvin sand area of the East Earlsboro Pool are prominent among the pools which operators desire to see opened, and which certain other operators want restricted.

Very Important Well

Gypsy Oil Co. and Carter Oil Co.'s No. 1 Miller, C NE SE Section 28-17-4w, in Logan County near Crescent, on a 30-minute cleaning-out flow was estimated at 100 bbls. an hour and 15,000,000 feet of gas a day. It was then shut in.

The well is producing from the Wilcox sand topped at 6,120-41 feet. The last 10 feet were cored and has not been reamed down as yet. The Simpson dense was found at 6,070 feet.

The cement plug was drilled out Wednesday, July 12, and the gas broke through the drilling fluid and threatened to blow out. A control head was installed and the next day the fluid was boiled down to 1,500 feet from the top of the hole when the well started heading and later cleaned itself.

This wildcat is located about a mile northwest of the Eason Oil Co.'s No. 1 Katscher, SW cor. NE SW Section 34-17-4w, which was completed about three years ago as a producer in the Layton sand series at 4,800 feet, and has been on production most of the time since, but because of the lack of market demand the field has not been developed around it.

The development of the area surrounding the new Wilcox sand of the Gypsy Oil Co. and Carter Oil Co. is expected to be orderly as the demand for the oil is limited at this time. By an agreement the companies having leases close by will drill their wells on 40-acre locations.

Continental Oil Co.'s No. 1 McConnell, C SE SE Section 28-17-4w, is located about a half mile south of the new producer. Work is to start immediately on this well.

South of this new producer the Shell Petroleum Corp.'s No. 1 Faulkner, C SE NW Section 11-15-4w, another wildcat test in Logan County, was shut down at 6,706 feet with about 4,500 feet of water in the hole. The water is believed to be coming from the Wilcox sand.

Wildcat Operations in Oklahoma

Northern Oklahoma

ALFALFA COUNTY

Company, farm and location—	Remarks:
Acre et al's No. 1 Acre, C SW NE Sec. 14-24-11w	O.W.D.D.; drlg. 5,580 ft.

BECKHAM COUNTY

Pattee Royalty Co.'s No. 1 Goose Tree, SW SE SW SE Sec. 22-10-23w	Drlg. 3,004 ft.

CADDO COUNTY

Denver P. & R. Co.'s No. 1 Noe, NW SW SW Sec. 34-10-10w	Drlg. 9,500 ft.
W. L. Miller's No. 1 Gardner, SE SW Sec. 26-6-10w	Rig.

COAL COUNTY

Dodd & Burton's No. 1 Grigsby, NW SE NE Sec. 35-1-8	Drlg. 1,878 ft.
Funk & Russell's No. 1 Miller, SE NE Sec. 10-3-8	Fishing 2,760 ft.

GARFIELD COUNTY

Continental Oil Co.'s No. 1 Thompson, NW SW SW Sec. 7-24-4w	Drlg. 6,415 ft.
J. H. Lewis' No. 1 Clark, C NW NW Sec. 34-21-6w	Rig.

HUGHES COUNTY

Dixie-Lee Oil Co.'s No. 1 Taylor, C NW Sec. 27-5-10	Drlg. 350 ft.
Gilcrease Oil Co.'s No. 1 Thompson, NW SE Sec. 34-7-8	Drlg. 1,300 ft.
Pioneer Pet. Co.'s No. 1 Brock, SE cor. Sec. 26-5-11	Rig.
Redwine et al's No. 1 Badger, C N half SW SW Sec. 4-5-11	Drlg. 330 ft.
Scruggs et al's No. 1 Black, NE Sec. 13-9-10	Rig.

KAY COUNTY

Blauner et al's No. 1 Maple, NE NW SE Sec. 20-27-4	Drlg. 660 ft.

KIOWA COUNTY

Christian's No. 1 Jones, NE NW Sec. 5-7-15w	Drlg. 1,900 ft.
King & Moore's No. 1 King, SE SW NW SW Sec. 27-7-16w	Drlg. 972-73 ft; est. 2,000,000 ft. of gas.
McWhirter et al's No. 1 Vanderneck, NE NW Sec. 3-7-19w (O.W.D.D.)	Drlg. 2,155 ft.

LINCOLN COUNTY

Magnolia Pet. Co.'s No. 1 Wagoner, SW SE Sec. 2-14-3	Drlg. 2,400 ft.

LOGAN COUNTY

Gypsy Oil Co.'s No. 1 McConnell, C NE SE Sec. 28-17-4w	Wilcox 6,120-41 ft; est. 400 bbls. an hr.
Shell Pet. Corp.'s No. 1 Faulkner, C SE NW Sec. 11-15-4w	Drlg. 6,706 ft; show wtr.

MURRAY COUNTY

A. E. Harden's No. 1 Sadler, NE Sec. 19-1-3	Rig.
T. E. Revells et al's No. 1 Wolfe, NE cor. Sec. 18-1-2	Rig.

MUSKOGEE COUNTY

J. S. Routt et al's No. 1 Escoe, CWL SE NE Sec. 17-13-17	Drlg. 900 ft.

NOBLE COUNTY

Sinclair Prairie's No. 1 Jerome, SW cor. Sec. 15-26-3w	T.D. 5,337 ft; P.B. to 4,955-70 ft. to test.
Wentz & Feagen's No. 1 Eyler, C SE SW Sec. 10-21-2	Rig.

OKLAHOMA COUNTY

Mid-Continental Oil Co.'s No. 1 Edwards, C SE SE Sec. 19-11-1	W.O.C.S. 260 ft.
F. Russell's No. 1 Heapley, SW NW NE Sec. 23-12-3w	Drlg. 2,690 ft.

PAYNE COUNTY

Kemp & Nunnelee's No. 1 Crane, SW SE SW Sec. 10-17-6	Drlg. 1,225 ft.
O. N. Maines et al's No. 1 Scheidberg, NW SW NW Sec. 27-22-6	Wilcox sand 3,114-38 ft.; wtr.

PITTSBURG COUNTY

Moffett & Hall's No. 1 Jones, C NE NW Sec. 14-3-14	Drlg. 2,655 ft.

PONTOTOC COUNTY

Gilbert's No. 1 Starritt, NW SE Sec. 28-4-6	Drlg. 1,313-20 ft; 5,000,000 ft. gas.
Choctaw O. & G. Co.'s No. 1 Thompson, SW NE SW Sec. 1-1-7	Drlg. 1,265 ft.
W. E. McGraw's No. 1 Mayhue, NE Sec. 19-2-6	Drlg. 1,175 ft.
McGee et al's No. 1 Newborn, SW NE Sec. 31-5-4	Rig.
Williams' No. 1 Kroth, NE SE Sec. 33-3-4	Drlg. 1,977 ft.
Wirrick's No. 1 Lee, SE SW Sec. 29-2-7	Drlg. 2,140 ft.

POTTAWATOMIE COUNTY

Payne Drlg. Co.'s No. 1 Lovelace, NW SW NW Sec. 27-6-4	W.O.C.S. 3,623 ft.

SEMINOLE COUNTY

Sibble & Freeman's No. 1 Gilbert, SW NW Sec. 25-8-7	Machine.
Stewart & Egan's No. 1 Sanderson, NE SW Sec. 27-6-5	Spudding.
Filmlee's No. 1 Bowlegs, SE NE SW Sec. 1-7-7	Drlg. 700 ft.
Armstrong et al's No. 1 Diamond, NE SE SW Sec. 4-6-7	Drlg. 3,400 ft.
Donnelly et al's No. 1 Shepard, SE NE Sec. 4-8-3	Sand 1,395-1,405 ft. wtr. fishing 1,440 ft.

WASHITA COUNTY

McWhirter & Best's No. 1 Hall, SW SE SE Sec. 28-8-19w	Drlg. 175 ft.

Southern Oklahoma

ATOKA COUNTY

Blake's No. 1 Galbreath, SW NE SE Sec. 5-1-15	Drlg. 245 ft.
Malernee et al's No. 1 Cole, NE NW Sec. 19-2s-14	Spudding.
L. E. Stewart et al's No. 1 Stewart, SE SE Sec. 2-4s-10	Drlg. 1,910 ft.
Wacker et al's No. 1 Baskett, SW NE NW Sec. 18-1-15	Drlg. 325 ft.

CARTER COUNTY

P. Turner's No. 1 Dove, NE NW SE Sec. 3-5-1	Rig abd.

JEFFERSON COUNTY

Hobbs' No. 1 Barnett, NE SE SW Sec. 33-5-5w	Drlg. 2,190 ft.
Wakefield's No. 1 Kelly, NW SE Sec. 1-5-5w	Drlg. 850 ft.

STEPHENS COUNTY

Doyle Oil Co.'s No. 1 Cunningham, SE NE NW Sec. 4-1-8w	Drlg. 2,500 ft.
Navajo O. & G. Co.'s No. 1 Martin, SE SW NW Sec. 18-1-5w	Abd. 4,321 ft.
Sledge et al's No. 1 Worley, SW SE SW Sec. 22-2-7w	Fishing 460 ft.

TILLMAN COUNTY

Emenhesser et al's No. 1 Pace, C SW Sec. 3-4s-17w	Drlg. 3,015 ft.
J. H. Everett's No. 1 Crane, SW cor. Sec. 15-3S-14w	Rig.
Gypsy Oil Co.'s No. 1 Pitcher, NW Sec. 36-4s-16w	Drlg. 2,764 ft.
Gypsy Oil Co.'s No. 1 Co. Dn. Pony, NW cor. Sec. 27-4s-15w	Drlg. 2,795 ft.

Report on Deepest Test

Interesting reports are coming from the State's deepest drilling well. It is reported that the Denver Producing & Refining Co.'s No. 1 Noe, C NW SW SW Section 34-10-10w, in northern Caddo County, was bailing down and showing oil and water. The total depth of the well is reported at 9,540 feet, and some believe it is in sand. It was shut down about two weeks ago for drilling water. The casing is cemented at 6,250 feet and from that depth to the bottom is open hole, and several sands have been penetrated. Operators have been unable to determine where the oil and water showings are coming from, but the crew will continue to bail in an attempt to clean the hole.

Oklahoma County Wildcats

An interesting wildcat was staked near the Messer well in northern Oklahoma County. H. E. Rapp and Anderson & Kerr's No. 1 W. J. Price, C E half NE SW Section 19-14-3w, about 2 miles north of the Mid-Kansas Oil & Gas Co.'s No. 1 Messer, was digging a cellar and rig material was being moved into the location.

In the southeastern part of the county, the Mid-Continental Co.'s No. 1 Edwards, C SE SE Section 19-11-1, a wildcat test near Newalla, has landed surface casing and is shut down.

Revival in West Holdenville

Field work has revived in the West Holdenville Field in Hughes County. With the lifting of proration in this area an increase in the price of crude oil is expected to result in considerable new activity. During the week three new tests were started and several others are expected in the next few days.

Proration of the production in this field was removed and notwithstanding the encroachment of water in the producing oil sand in some of the larger wells the field is producing from 3,500 to 4,000 bbls. a day. Prior to the lifting of proration the field was producing 2,500 bbls. a day.

During the period when the price of crude oil fell to 25 cents a barrel, a number of operators stored their oil. Since the recent increase in prices most of the producers have been selling all their crude oil.

New operations that have started include the Phillips Petroleum Co.'s No. 3 Jacobs, SW cor. NE NE Section 16-7-8, which is an offset to a 500-bbl. well. Boettcher Oil & Gas Co.'s No. 3 Jacobs, NW cor. SE SE Section 9-7-8, which offsets the same company's No. 2 Jacobs is a 600-bbl. well, and Baskin & Leeper's No. 1 Coppedge, SE cor. Section 16-7-8.

New Pay in Noble County

A new pay horizon was discovered in the Lucien Wents Pool, in Noble County, on the east side of the field. The Continental Oil Co. and others' No. 1 Bolay, C SW SW Section 16-20-2w, found a sand at 4,850 feet where oil rose 3,000 feet in the hole. Cable tools are being used at this test, as the drillers are sidetracking and drilling by a lost bailer, that has been in the hole for the last month. The company announced that

the hole will be drilled deeper before a test is made of the oil showing.

In the southeastern part of the field, the Shell Petroleum Corp. and others' No. 1 M. Farr, C NE SE Section 19-20-2w, after being tested with acid in the Wilcox sand without results, was drilling deeper at 5,415 feet with approximately 1,500 feet of water in the hole.

The charges of overproduction against the Eason Oil Co. and Wirt Franklin Petroleum Corp. set for last week have been continued until September 13. The alleged overproduction of these companies' wells was in the Oklahoma City Field during the latter part of last year.

Tatums Pool Extended

In southern Oklahoma, the Carter Oil Co.'s No. 1 Perkins, SE cor. NW SW Section 3-1s-3w, extended production westward from the Tatums Field in Carter County and new drilling is starting in the area.

Two offsets were announced and they are expected to start drilling at once. W. Neustadt has a block of acreage to the south of the wildcat of the Carter Oil Co., and Texas Co. has a lease just west of the new producer.

To the southwest of the well, the Amos Drilling Co. has a lease and if the Neustadt well produces it will be forced to start a new well.

The Carter Oil Co.'s No. 1 Perkins made 511 bbls. of oil in 24 hours from the sand at 2,740-70 feet and the total depth of the well is 2,855 feet. The company is preparing to take a potential test of the well.

Beckham County

Fred Coogan's No. 1 Beagle, NE cor. NW Section 28-9-23w, is a rig. Ramsey Petroleum Co.'s No. 1 Poarch, SE cor. NE SW Section 24-9-23w, is a rig.

Carter County

Clem Scott Oil Co.'s No. 1 Carter, SW cor. NW NW Section 13-1s-3w, was abandoned at 3,031 feet.

Cotton County

Shasta Oil Co.'s No. 1 School Land, SW cor. SE SE Section 36-0-10w, was abandoned at 2,610 feet.

Creek County

Gled Oil Co.'s No. 3 Escoe, CSL SE SE Section 27-18-8, is a machine. Johnson Oil & Gas Co.'s No. 4 Boyd CEL NE SW Section 29-19-8, is a machine. Big Four Petroleum Co.'s No. 1 McMac, SW cor. SE SE Section 25-19-8, is a rig. Galbreath & Byers' No. 2 Harjo, NW cor. SW NW Section 35-18-8, drilling at 200 feet. Sherry & Murta's No. 3 Cruel, CSL SW NE Section 36-17-11, an old well drilling deeper, is cleaning out. Galbreath & Byers' No. 1 Johnson, NE cor. SW Section 5-19-8, made 70 bbls. from 2,014-34 feet.

Garvin County

T. E. Reveils and others' No. 1 Wolfe, NE cor. Section 18-1-2, is a rig.

Grady County

W. S. Critchlow's No. 5 Adair, C SW NW Section 27-3-5w, made 180 bbls. from 2,539-69 feet.

Hughes County

Chamberlain and others' No. 1 Scott, NE cor. SE NW Section 23-6-8, is a rig. Scruggs and others' No. 1 Black, NE cor. Section 13-9-10, is a rig.

Jefferson County

Southern Oil Co.'s No. 1 Seay (twin), SW cor. SE NW Section 3-7s-5w, is a rig. Bridwell Oil Co.'s No. 1 Seay, SE cor. NE SE Section 5-7s-5w, abandoned at 1,891 feet.

Marshall County

Kingston Oil Co.'s No. 3 Adams, NE cor. SE SE SW Section 31-7-6, was drilling at 20 feet.

Oklahoma County

Phillips Petroleum Co.'s No. 3 Beaucamp, C SW SE Section 22-11-3w, is a rig. Same company's No. 3 Drew, NE cor. SE NW SE Section 22-11-3w, is a location. H. E. Rapp and others' No. 1 Price, C E half NE SW Section 19-14-3w, is a location.

Osage County

Gray & Tolson's No. 2, NE cor. SE SW Section 27-21-9, is a location. Pueblo Oil Co.'s No. 5 Osage, NE cor. SW NW Section 14-21-8, is a location. Producers & Refiners Corp.'s No. 2, NW cor. SW Section 15-24-7, is a location. Sinclair Prairie Oil Co.'s No. 1, SW cor. NW Section 22-25-6, made 150 bbls. from 2,712-35 feet. Buell and others' No. 2, CEL SE Section 29-23-9, made 125 bbls. from 2,495-2,500 feet.

Okmulgee County

B. L. Wigton's No. 5 Acres, NW cor. SW NW NW Section 31-14-13, is a rig. Bassett and others' No. 2 Checote, SW cor. SE SW Section 20-15-13, is a location. Mid-Texas Co.'s No. 1 Cousins, CEL SE SW Section 7-15-12, was drilling at 200 feet. Lambert and others' No. 1 Call, C E half SE NW Section 24-16-14, made 4,000,000 feet of gas from 1,770-80 feet, total depth 2,266 feet. W. B. Pine's No. 1 Chamberlain, NW cor. NE Section 3-14-12, made 250,000 feet of gas from 1,546-49 feet. Hazlett and others' No. 2 Dunbar, NE cor. NW NW NW Section 31-14-13, made 25 bbls. from 1,942-62 feet. Cusack & Sharon's No. 8 Wiley, SW cor. NW NE Section 29-13-14, was abandoned at 1,250 feet.

Pawnee County

List and others' No. 1 Drum, SE cor. NW NW Section 18-21-8, made 15 bbls. from 1,990-93 feet.

Pontotoc County

Buchner and others' No. 1 Moore, SE cor. NE SE Section 12-5-8, is a machine. Westheimer & Daube's No. 1 Hammett, NE cor. NW Section 12-4-7, is a rig. Denver Producing & Refining Co.'s No. 1 Standridge, SE cor. NW SE Section 25-5-4, is a rig. McGee and others' No. 1 Newborn, SW cor. NE Section 31-5-4, is a rig.

Pottawatomie County

E. W. Jones' No. 1 Lucas, NE cor. NW Section 2-6-4, is a rig. Amerada Petroleum Corp.'s No. 1 Harrison, NW cor. SW Section 33-7-4, made 2,732 bbls. from 4,052-79 feet.

Seminole County

Carter Oil Co.'s No. 1 Ray, C W half NE NE Section 23-11-3w, is a location. Southern Oil Co.'s No. 1 Mitchell, SW cor. Section 9-9-6, was abandoned at 4,273 feet. Turman Oil Co.'s No. 1 Polk, NW cor. SE NE Section 4-8-5, made 260 bbls. from 3,977-4,029 feet.

Stephens County

Colbert and others' No. 1 Waller, NW cor. Section 26-1-9w, was abandoned at 1,875 feet. Navajo Oil & Gas Co.'s No. 1 Marten, SE cor. SW NW Section 18-1-5w, was abandoned at 4,821 feet.

Tulsa County

H. W. Bowden's No. 2 Hodge, C SE NW Section 5-17-14, is a machine. Galls & Dittman's No. 1 Brown, NW cor. SE Section 14-18-14, was drilling at 200 feet. Johnson Oil & Refining Co.'s No. 2 Davis, C SE SE Section 19-19-10, was drilling at 200 feet.

Tillman County

J. H. Everts' No. 1 Crane, SW cor. Section 15-3s-14w, is a rig.

Wagoner County

McIntire's No. 1 Tiger, CNL SE NW Section 2-17-15, is a machine. Stansbery's No. 4 Drew, CSL SE NE Section 26-18-15, is a machine. Beckley & Pearson's No. 1 Norfer, SW cor. SE Section 14-18-15, was drilling at 400 feet. Helvie & Stout's No. 1 Darrisaw, SE cor. NW SE Section 24-18-15, was drilling at 500 feet. Sands Petroleum Co.'s No. 2 Hall, NE cor. SW Section 24-18-15, was drilling at 300 feet. J. E. Martin's No. 2 Drew, CNL NE SE Section 26-18-15, was drilling at 1,000 feet. Mays Drilling Co.'s No. 1 Lovett, SW cor. SE Section 35-18-15, was spudding.

Heart Disease Takes Widely Known Banker

Omer K. Benedict, age 58 years, vice president of the First National Bank & Trust Co. of Tulsa, died of heart disease very suddenly on Monday night, July 10. Although not in good health for some time, he had attended to business daily and had taken part in a meeting which did not close until an hour or so before he passed away.

Mr. Benedict was a pioneer Oklahoma newspaper publisher and editor before he became associated with the Waite Phillips interests several years ago. He was Republican candidate for governor of Oklahoma in 1926 and had previously served Tulsa as postmaster for one term and a part of another. He was a veteran of the Spanish American war.

The funeral was held Thursday, July 13. Services were conducted in the First Presbyterian Church by the Rev. Charles W. Kerr, pastor, who paid a fine tribute to the deceased banker and pioneer citizen.

IMPORTANT BOOKS
for the Oil Man's Library

"HANDBOOK OF BUTANE-PROPANE GASES"

A new industry has recently been established for what was a few years ago a waste product, useful only as a fuel; this is the industry involving the liquefied hydrocarbons propane and butane. These are derived from natural gas and refinery gas. Information concerning the characteristics of these gases and their commercial applications has been difficult to obtain. Now a valuable book, "Handbook of Butane-Propane Gases," has been published which thoroughly covers the subject.

This volume, 8¾x12 in size, fully illustrated and containing 279 pages, has been prepared by prominent technologists, chemists, engineers, and operators. Its 12 chapters discuss the development, physical properties, chemical composition, manufacture, transportation, and uses of these gases, and also appliances for their utilization.

Use of butane and propane for gas enrichment, and the building of butane-air plants, are especially well covered. An excellent section of the book is that devoted to names of firms supplying equipment and appliances for the liquefied petroleum gas industry.

This important volume contains a fund of information which has not hitherto been available in book form. The book should be in the library of every person whose duties call for reliable knowledge of natural gas, refinery gases, and their effective use.

"Handbook of Butane-Propane Gases" may be purchased through the Book Department of The Oil and Gas Journal at the regular postpaid price of $5, payable by check or money order before book is forwarded.

East Texas Fields

(Continued from Page 32)

production 55 bbls. per hour through three-quarters inch tubing choke, total depth 3,644 feet. Mudge Oil Co.'s No. 2-B S. E. Richardson, top sand 3,725 feet, initial production 75 bbls. per hour through open tubing, total depth 3,765 feet. Perrin & Fell's No. 6 C. C. Landers, top sand 3,750 feet, initial production 75 bbls. per hour through open tubing, total depth 3,759 feet.

WILDCAT COMPLETIONS

Angelina County

W. J. Chandler's No. 1 L. J. Dearman, elevation 264 feet, dry and abandoned; J. T. Peavy Survey. J. C. Crosby and others' No. 1 Cameron Lumber Co., location abandoned; W. B. Graham Survey. Crosby and others' No. 1 John C. Davis, dry and abandoned, total depth 1,195 feet; John H. Graham Survey.

Cherokee County

T. C. Caldwell and others' No. 1 W. C. Wallace, dry and abandoned, total depth 4,141 feet, top Pecan Gap 3,365 feet, elevation 355 feet; C. Burnett Survey.

Van Pool—Van Zandt County

Pure Oil Co.'s No. 3 A. G. Tunnell, plugged and abandoned, total depth 2,993 feet.

ROCKY MOUNTAIN AREA

Average daily production for the week ending July 15 follows:

	Bbls.
WYOMING	
Salt Creek	16,300
Big Muddy	1,850
Badger Basin	40
Byron-Garland	100
Byron-East	0
Dallas Derby	540
Dutton Creek	70
Elk Basin	520
Ferris	20
Frannie	220
Grass Creek	Shut in
Greybull	0
Hamilton Dome	850
Hudson	360
LaBarge	930
Lance Creek	180
Lost Soldier	1,880
Mule Creek	Shut in
Midway	70
Notches	Shut in
Oregon Basin	280
Osage	620
Pilot Butte	30
Rex Lake	Shut in
Rock River	1,290
South Casper	Shut in
Poison Spider	260
Teapot	20
Warm Springs	0
Total	26,430
MONTANA	
Buckley-Border	370
Cat Creek	710
Cut Bank	1,150
Dry Creek	1,040
Kevin-Sunburst	3,450
Lake Basin	60
Pondera	740
Total	7,520
COLORADO	
Florence	250
Fort Collins and Wellington	620
Iles Dome	590
Moffat	630
Orchard	140
Rangely	80
Tow Creek	240
Total	2,550
NEW MEXICO	
Artesia	530
Cooper area	70
Empire area	0
Eunice	540
Getty Pool	0
Hobbs	30,150
Hogback	220
Hospah	Shut in
Jal	1,540
Lea area	2,140
Jackson	670
Maljamar	230
Rattlesnake	630
Table Mesa	80
Total	36,300
Total all fields	73,300
Total previous week	73,660
Difference	360

More Than 50 Field Operations Announced by Kansas Operators; Production Nearing Peak

By W. A. SPINNEY
Staff Correspondent, Kansas Fields

Kansas shows a large increase in field work. More than 50 new operations were started during the last two weeks. The daily production for the week ending July 15 was estimated at 132,400 bbls., which is an increase of approximately 800 bbls. a day over the previous week. The Hollow Pool, in Harvey County, is the most active in the State, with more than 25 tests now drilling and a number of others preparing to start.

The Chase townsite in Rice County is fast developing into a busy area. There are now five producing wells on the townsite and since the big well of E. F. Jones Oil & Gas Co. was completed four more locations were announced. The new well was pumping 100 bbls. an hour from the Siliceous lime from a total depth of 3,224 feet. The Gypsy Oil Co. is starting two wells offsetting the Jones well.

The seventh test for oil and gas is starting in the Cheyenne Bottoms of Barton County. The well is the Stanolind Oil & Gas Co. and Amerada Petroleum Corp.'s No. 1 Everleigh, C SW SE Section 13-18-13w. The spudding of this test is expected soon. It will be the seventh test started during the last 10 years in that area. All of the previous tests indicated that the bottoms may become an oil producing territory. The Stanolind test is located about 2 miles south of the nearest other test.

Additional Time Granted

State Oil Umpire C. H. Cooper announces that after further consideration the State Corporation Commission and the Oil Advisory Committee have decided that the 30-day period was not sufficient time for making up all underproduction and have decided to grant an additional 15 days for the purpose of making up these shortages. The time has been extended from July 29 to August 13, and all shortages not made up by that time will be canceled, unless inadequate marketing facilities prevent the making up of shortages.

Increased nominations will be accepted in all areas after July 29, but all remaining shortages in areas then receiving nominations for 100 per cent production will be canceled.

In McPherson Field

New operations in the Ritz-Canton-Decker Pool, in McPherson County, include the Phillips Petroleum Co.'s No. 2 Wiles, SE cor. NE NE Section 25-19-2w; No. 6 Anderson, NW cor. Section 30-19-1w; No. 3 Garrett, SW cor. NW NE Section 30-19-1w.

No. 2 Wiles is located about two locations north of the No. 1 Wiles, a Viola lime well, which has been producing for some time. If it is a producing well it will force the drilling of another test, No. 7 Anderson. No. 2 Anderson is one location west of the same company's No. 6 Anderson, a Viola lime well. If it is a producer it will force the drilling of three offsets. The No. 3 Garrett will be drilled with rotary tools as well as the other two tests, and if it makes a producer it will force the drilling of three offsets.

Harris and Haun's No. 1 Sellers, C SW NW Section 19-19-1w, in the northeast part of the Ritz-Canton Pool, McPherson County, found the top of the chat at 2,930 feet, and after drilling to 2,938 feet started underreaming the casing to the top of the chat.

The wildcat test of Roth & Faurot, No. 1 Swanson, NE cor. SW NE Section 13-19-2w, was drilling into the chat formation in search of commercial production. This test is located about a third of a mile southwest of production. It found the top of the chat at 2,947 feet and when the bit reached 2,950 feet in the chat a showing of gas was found. When the crew completed the pulling of the big pipe it will be drilled deeper.

In the Hollow Pool, in Harvey County, Derby Oil Co.'s No. 3 Schmidt, SE cor. NW NW Section 17-22-3w, is a new location. It is the south offset to a Wilcox sand well. Rotary tools will be used. This is the fourth well within a quarter of a mile in this part of the field.

W. C. McBride, Inc.'s No. 3 Schmidt, NW cor. NE NE Section 30-22-3w, found the Hunton lime at 3,393 feet, which is considered high. The casing will be cemented on top of the Hunton lime.

W. C. McBride, Inc.'s No. 2 Koehn, NW cor. NE, Section 33-21-3w, in the Mabee Pool, in McPherson County, failed to produce in the chat formation and was drilling deeper to test the Hunton lime. The top of the chat was found at 3,112 feet and water was found at 3,145-50 feet. Only a small showing of oil and gas was found in the chat.

Potentials and Allowables

The Stoltenberg Pool, in Ellsworth County, was given an allowable of 10 per cent of its potential on June 20, after being shut in since April 1. The wells in the field were given 24-hour potential tests from July 1 to 5, and producers were authorized to produce 10 per cent of the potential production of these tests.

The production from the Sharpe area in Section 30-20-10w, Rice County, was increased from 300 to 500 bbls. a day on July 1. No other change in nominations in the others was announced.

The Siliceous lime areas in the central western part of the State have a total of 67 wells with a daily potential of 45,575 bbls. The umpire's report shows underproduced oil to the amount of 98,845 bbls. The producers have until July 29 to make up this underproduction.

The Ritz-Canton Field in McPherson County had a potential of 46,172 bbls. a day on July 1 from a total of 183 wells. The underproduction in this field totals 396,009 bbls. as of July 1. With no changes in the nominations of the purchasing companies the deep sand wells are permitted to produce 56 per cent of the potential production. The chat wells are permitted to produce full capacity until further notice.

The Voshell Pool, in McPherson County, has a potential production of 17,073 bbls. from 118 wells. The underproduction on July 1 totals 18,037 bbls. The producers are permitted to produce 35 per cent of the potential production from the deep sand wells and full capacity of the chat wells.

The Mabee Pool, in McPherson County, has a potential production of 23,536 bbls. a day from 19 wells and the underproduced oil amounts to 40,431 bbls. on July 1. Producers are permitted to produce 37 per cent of the potential.

The Johnson Pool, in McPherson County, has an underproduction of 88,910 bbls. from its 18 wells. The estimated potential of this pool is 4,500 bbls. daily.

The Hollow Pool, in Harvey County, had a daily allowable of 12,600 bbls. on July 1, and a total underproduction of 167,030 bbls. from 42 wells.

Wildcat Operations in Kansas

(Descriptions are East unless marked otherwise)

BARTON COUNTY

Company, farm and location—	Remarks:
Rankin et al's No. 1 Socog, C SW NE Sec. 24-16-12w	Drlg. 2,504 ft.
Skelton et al's No. 1 Ott, C SE SE Sec. 16-19-14w	O.W.D.D.; T.D. 3,607 ft.; C.O.

BUTLER COUNTY

Hartman et al's No. 1 McCann, SE SW NW Sec. 7-25-3	Drlg. 1,000 ft.
Marylyn Oil Co.'s No. 1 Harsh, NE SW Sec. 33-23-3	Drlg. 800 ft.

COWLEY COUNTY

E. Yarnell's No. 1 Speer, SE NE NE Sec. 31-33-4	Drlg. 1,400 ft.

ELK COUNTY

Austin et al's No. 1 Wade, C NE NE Sec. 9-29-12	Drlg. 1,910 ft.

ELLSWORTH COUNTY

Rex Etnyre's No. 1 Arnsman, C SW SW Sec. 19-15-7w	Rig.

GEARY COUNTY

Ledaurls' No. 1 Fechner, C SE NE Sec. 27-13-8	Drlg. 950 ft.

GRAHAM COUNTY

Schlelmeyer et al's No. 1 Smith, SE Sec. 34-8-25w	Fishing 4,130 ft.

GREENWOOD COUNTY

Chas. Reser et al's No. 1 Hull, NW SE Sec. 8-26-9	Drlg. 2,265 ft.
Reeser & Chriswell's No. 1 Sallyards, C SW SW Sec. 25-25-9	Spudding.
Wright's No. 1 Madren, SW SE SW Sec. 29-22-12	Machine.

KINGMAN COUNTY

Garden et al's No. 1 Unknown, Sec. 11-27-7w	Drlg. 2,810 ft.
D. R. Lauck et al's No. 1 Church, SE SW NE Sec. 10-28-6w	Rig.

MARION COUNTY

Hutchinson Oil & Gas Co.'s No. 1 Miller, NW cor. Sec. 6-17-3	Drlg. 1,300 ft.

McPHERSON COUNTY

Clum et al's No. 1 Nelson, C NE NW Sec. 13-18-4w	Drlg. 3,100 ft; show wtr.
Sever and Hessman's No. a Scrag, S½ SE Sec. 22-19-4w	Rig on ground.
Gaume & Maxwell's No. 1 Goering, NE SE SW Sec. 24-13-3w	Rig.
Investors Mineral Dev. Co.'s No. 1 Kaufman, SE Sec. 35-21-3w	Rig.
Roth & Faurot's No. 1 Swanson, NE SW NE Sec. 13-19-3w	Rig.

PRATT COUNTY

Minnescah O. & G. Co.'s No. 1 Hardesty, SW SE SE Sec. 28-27-11w	Drlg. 4,427 ft.

RENO COUNTY

Roth & Faurot's No. 1 Yoder, C NW NW Sec. 15-24-5w	C.O. 325 ft.

RICE COUNTY

Langston et al's No. 1 Wells, NE SE Sec. 4-20-9w	Drlg. 2,700 ft.

ROOKS COUNTY

Kruger's No. 1 Rathburn, SE NW SW Sec. 14-9-16w	Rig.

SALINE COUNTY

Dieter, Warren and Larlo O. & G. Co.'s No. 1 Fulton, SW NW Sec. 14-16-3w	Siliceous lime 3,573-79 ft; wtr.; abd.

SUMNER COUNTY

Deal O. & G. Co.'s No. 1 Tompkins, SW cor. Sec. 26-33-1	Fishing 3,730 ft.

WOODSON COUNTY

F. Fields' No. 1 Munson, SW NE SW Sec. 9-25-14	Drlg. 590 ft.

After four years of development of oil in the McPherson district there are now approximately 450 producing wells with a daily average potential of 80,000 bbls. The discovery well in the area was completed June 30, 1929. It was the first commercial oil well in the county, and it came in a gusher. The development continued notwithstanding the low crude oil price during the last few years and it is estimated that now there are about 35,000 acres of proven oil reserves in the county.

Drilling is continuing at a steady rate and it is estimated that there are approximately 3,000 locations to be drilled in the McPherson County fields.

The daily average production of the principal pools of the State for the week ending July 15, was as follows:

Pool—	Week ending July 15	Previous week
Hollow	16,125	17,930
Ritz-Canton	25,985	24,520
Voshell	6,970	6,790
Sedgwick County	9,580	9,125
Mabee (Nikkel)	8,985	10,560
Ellsworth County	2,550	1,895
Barton County	382	670
Rice County	4,715	2,995
Reno County	2,315	1,865
Stafford County	195	200
Total	77,802	76,510
Others	54,598	55,090
Total State	132,400	131,600

Barton County

Stanolind Oil & Gas Co.'s No. 1 A Andreas, C SE NE Section 8-20-11w, is a location.

Chase County

Polhamus and Smith's No. 7 Leedy, NW cor. NE NW Section 36-22-9, was spudding.

Cowley County

Sinclair Prairie Oil Co.'s No. 6 Dibbons, SW cor. NE NE Section 22-32-4, is a rig.

Ellsworth County

Sinclair Prairie Oil Co.'s No. 3 Stratman, SE cor. NE SW Section 1-17-10w, is a location. Derby Oil Co.'s No. 2 Stratman, NW cor. NE Section 12-17-10w, is a location. Gypsy Oil Co.'s No. 3 Stoltenberg, SW cor. SE SW Section 22-16-10w, made 1,579 bbls. from 3,301-17 feet.

Geary County

Ledournis' No. 1 Fechner, C SE NE eSection 27-13-8, was drilling at 950 feet.

Greenwood County

Ward McGinnis' No. 1 Beal, SE cor. NE NE Section 32-23-11, is a location.

Harvey County

L. H. Wentz's No. 1 Bestwater, SE cor. SW Section 8-22-1, is a location.

Stanolind Oil & Gas Co.'s No. 3 Froese, SW cor. NW NW Section 20-22-3w, is a location. Skelly Oil Co. and others' No. 4 Martens, NW cor. SW SE SE Section 19-22-3w, is a rig. Producers & Refiners' Corp.'s No. 4 Martens, NE cor. SW SE Section 19-22-3w, is a location. Mid-Kansas Oil & Gas Co.'s No. 6 Duerkson, SE cor. NE NE Section 19-22-3w, is a location. Magnolia Petroleum Co.'s No. 2 Schmidt, NE cor. NW NW Section 30-22-2w (twin), is a rig. Same company's No. 1 Schmidt, NE cor. NW NE Section 30-22-2w, made 60 bbls. from 2,490-2,520 feet. Skelly Oil Co. and others' No. 2 Schmidt, NW cor. Section 17-22-3w, made 620 bbls. in 17 hours from 3,551-67 feet. Murray and others' No. 1 Dyck, SW cor. NE SW Section 8-22-3w, made 2,219 bbls. from 3,215-16 feet.

(Continued on Page 48)

Trinity Sand Test in North Louisiana May Be the First Commercial Producer From That Zone

By D. H. BANCROFT
Staff Correspondent, Louisiana-Arkansas

SHREVEPORT, La., July 17.—Attention was diverted this week from the Converse area of Sabine Parish, Louisiana, to Claiborne Parish, where the United Gas Public Service Co.'s No. 1 Meadows, Section 13-21-5, cored into a saturated sand at 6,680 feet that looks as though it might be productive. If so, it will be the first commercial producer in the deeper horizons of North Louisiana, for while there have been half a dozen or so deep holes drilled in different parts of the territory that showed as wells, they were failures for purely mechanical reasons, principally because they were not begun with the idea of going to the depths reached and consequently had so small a hole at the bottom that when they did strike pay it was impossible to make a real well. Four cores were taken between 6,608 feet and the present depth, with a drill stem test on each, all of which in both cases were failures until the last. The last of these cores, is said to almost duplicate that taken from Magnolia Petroleum Co.'s No. 1 McCook & Hibbler in the Cotton Valley Pool of Webster Parish at around 7,000 feet, three years ago which, but for the reasons given above, might have made a commercial well. Opinion seems to be that "now they are getting down to the deeper Trinity there is some chance of getting production." This bears out the theory that North Louisiana and Arkansas' next chance for flush production in big figures lies in horizons deeper than any yet thoroughly explored.

Converse Pool's next hope after O. G. Golden and others' well in Section 20-9-13, Sabine Parish, reported last week as a 300-bbl. producer, appears to be a failure. It is Sabine Production Co.'s No. 1 Whitney Corp., SW SW Section 4-9-13, 1¼ miles northwest of nearest production. It made 1,250,000 feet of gas at 2,993 feet, killed it with mud, drilled to 3,061 feet with the bottom in 6 feet of sand that developed 2,600 bbls. of salt water with oil and gas, cemented 4½-inch at 3,020 feet, drilled plug and tested again with the same results—salt water, some oil, and gas. It may be a leaky casing seat.

George Greer and others' second test on their 6,000-acre block in Catahoula Parish, No. 1-B Louisiana Central Lumber Co., Section 2-9-6, was coring below 2,752 feet. Location is 500 feet west of No. 1 on the same lease and section which blew out with an estimated 15,000,000 feet of gas and 5,000 bbls. of salt water from 2,744 feet. There undoubtedly is commercial gas in Catahoula Parish, but all the wells so far drilled, of which there have been half a dozen or more, have had the same fate after exactly the same shows. The solution seems to be in more careful drilling, making hole slowly.

After the Sabine Production Co.'s well in Section 4-9-13, Sabine Parish, Converse's next hope appears to be Joe Modisette's No. 3 Frost-Johnson in the NE SW Section 16-9-13, reportedly the highest on structure of any test yet made in the area. On a drill stem test at 2,950-90 feet it had considerable gas with five joints of mud in 10 minutes from a sandy lime and was coring at 3,040 feet. It could have been made a 10 or 15-bbl. producer in the shallow stuff from which other Converse wells are producing and apparently has not gone far enough to tap the upper Trinity's possible producing horizons. The idea seems to be that the shallow stuff will make numerous small and more or less short lived wells over a large area while the deeper horizons penetrated by the Modisette and Sabine Production Co. wells will make wells of larger initial production and longer life in a much more restricted area. Only a fish tail bit backed by plenty of money will prove which, if either, theory is correct.

Thirteen Completions

Thirteen completions in the territory netted one small gas well of less than 1,000,000 feet open flow, that being Inabnet & Pipes' No. 3 Van Horn, SW NE Section 14-18-4, Quachita Parish section of the Monroe gas field. All the others were dry holes, and there were also six abandoned locations.

Thirteen of the dry holes and five abandoned locations were in Louisiana and six of these were in Sabine Parish and three were not drilled.

Of 15 new locations 14 were in Louisiana and one in Miller County, Arkansas. Sabine Parish accounted for six of the new locations and two of these were in Converse territory.

Completions were: Sedberry and others' No. 1 T. J. Lawhon, NE SE Section 15-16-8, Bienville Parish, dry at 3,307 feet; Lockhart & Trammell's No. 1 Surrey Oil Co., NE NE Section 3-20-16, Mooringsport district of Caddo Parish, location abandoned; Nelson Oil Co.'s No. 1 Taylor, SW SE Section 13-18-14, 2 miles north of Shreveport, dry and abandoned at 3,017 feet; Roberts & Wimberly's No. 1 J. S. Noel, NW NE Section 12-20-16, Mooringsport district of Caddo Parish, location abandoned; Haynesville Partnership's No. 1 J. L. Garrett, NW SW Section 24-23-8, Claiborne Parish, Haynesville townsite, salt water at 4,707 feet; the Texas Co.'s No. 1 Sission, dry and abandoned at 3,523 feet, SW NE Section 20-22-7, Morehouse Parish section, Monroe gas field; Inabnet & Pipes, reported above; Euford and others' No. 2 T. A. Webb, NE SW Section 31-8-11, Zwolle district of Sabine Parish, dry at 2,562 feet; E. D. Holcomb's No. 1 Shufford, NE NE Section 34-8-12, Zwolle, location abandoned; C. D. Loe, trustee's No. 1 Whitney Corp., NE NE Section 12-9-14, 3 miles west of nearest Converse production, dry at 2,107 feet; Rolland Oil Co.'s No. 1 Stevens, SE NW Section 17-9-11, Belmont district of northeastern Sabine Parish, abandoned location; Service Drilling & Royalties Corp.'s No. 2-B Gardner, SW NW Section 7-7-10, Zwolle, dry at 2,835 feet; B. R. White and others' No. 1 Cooper, SW NW Section 32-8-11, Zwolle, derrick abandoned; Mamie McCurrie's No. 1 Richard & Denman, SW SW Section 13-19-9, West Carroll Parish, dry at 2,360 feet; Duluth-Arkansas Oil Co.'s No. 1 Price, NW NE Section 18-16-25, Miller County, Arkansas, dry at 4,016 feet, deepened from 3,030 feet where a drill stem test was dry; W. E. Noel and others' No. 1 Dickson heirs, NW NE Section 11-20-27, Miller County, dry at 2,600 feet; John C. Rogers and others' No. 1 H. Z. Price, NW NW Section 17-16-25, Miller County, rigged up and abandoned; J. G. Beard's No. 1 G. W. Dugall, NW SW Section 13-19-13, Urbana district of Union County, Arkansas, dry at 3,628 feet.

New Locations

New locations were: Pine Prairie Oil Co.'s No. 1 Coco, SW SW Section 36-1n-5, in the Conroe-Jackson trend play, P. B. Dyer's No. 2 B. F. Jenkins, NW SW Section 35-15-12, DeSoto Parish, rig up; Marr & Collins' No. 1 Desha Lumber Co., Section 42-21-12, East Carroll Parish, on a block of 18,000 acres designed for a 4,500-foot test; United Gas Public Service Co.'s No. 29 Crossett Lumber Co., SW SW Section 17-22-5, Morehouse Parish, derrick; No. 1 R. C. Anderson, Section 41-21-5, Morehouse; H. H. Temple's No. 1 Boyett, SW SE Section 16-5-1w, Rapides Parish; Dophin Lumber Co.'s No. 1 fee, SE SE Section 19-6-5, Rapides Parish; E. M. Self's No. 1 G. I. Paul, NE SW Section 9-9-13, Converse area, Sabine Parish, rig up; A. F. Allen's No. 1 G. W. Belton, NW NW Section 33-9-13, Converse area, Sabine Parish, derrick; DeGeneres, McConnell & Sanderson's No. 2 Cranford, NW SE Section 20-9-13, Converse (No. 1 drilled as O. S. Golden); Pelican Natural Gas Co.'s No. 21 Louisiana Long Leaf Lumber Co., SE SW Section 3-7-11, No. 22, SW NE Section 8-7-11, and No. 23, SW SE Section 29-7-11; H. & H. Drilling Co.'s No. 1 Read, NW SE Section 33-22-2e, Union Parish, section, Monroe gas field; Gee & Lynch's No. 1 Porter, NE NE Section 22-10-22, Nevada County, Arkansas. The Texas Co. is reported having leased all sixteenth sections in Avoyelles Parish for 25 cents per acre and a block of 20,000 acres in the southern part of the parish at $1 per acre, renewals the same in both cases. Avoyelles is in line of the Conroe-Jackson trend play with the southern part of the parish well within the belt.

Daily Average Production

The daily average runs from the several pools for the week ending July 15 were as follows:

NORTH LOUISIANA

	Bbls.
Caddo light	4,580
Caddo heavy	1,554
DeSoto-Red River	1,584
Elm Grove	312
Haynesville	3,740
Holly	237
Homer	2,583
Pleasant Hill	238
Sarepta-Carterville	800
Urania	1,567
Zwolle	6,907
Total	26,082
Last week	24,230
Increase	1,852

ARKANSAS

Champagnolle	1,378
El Dorado	2,904
Lisbon	420
Miller	200
Nevada	405
Smackover light	3,523
Smackover heavy	21,760
Urbana	435
Total	30,985
Last week	29,822
Increase	263
Both states	56,167
Last week	54,052
Increase	2,115

Wildcat Operations in Louisiana-Arkansas

(Rotary operations unless otherwise designated)

North Louisiana

AVOYELLES PARISH

Company, well, farm name, section and block— Remarks:

Gary Provenson's (was Bud Harrell et al) No. 1 Haas, 330 ft. N and W, SE cor. SW SW Sec. 9-1s-3e ..... Derrick.

BOSSIER PARISH

J. A. King et al's (was A. W. Phillips, tr.'s) No. 1 Oden, 300 ft. W, 150 ft. N, SE cor. NW NW Sec. 4-18-13 ..... Bailing and swbng. show oil; T. D. 1,704 ft.

Dr. C. R. Reed, tr.'s No. 1 C.J.&B., Sec. 18-16-11 ..... Rigging up.

B. A. Sherrell, tr.'s No. 1 fee, NE NW NW Sec. 18-19-11.. Drlg. 1,130 ft.

CADDO PARISH

J. B. Hutchinson, tr.'s No. 1 Story Phillips, 330 ft. N and E, SW cor. SW NE SE Sec. 23-16-13 ..... Rig up.

J. T. Humphrey et al's No. 1 Powell, 330 ft. N and E, SW cor. NW SE Section 14-19-15 ..... Derrick.

John F. Kerper's No. 1 Banon, 350 ft. N and W, SE cor. NE SE Sec. 27-16-14 ..... Rig up.

A. D. King, tr.'s No. 1 Roach, 641 ft. E, 375 ft. N, SW cor. SW SW Sec. 4-14-16 ..... Derrick.

CATAHOULA PARISH

George Greer et al's No. 1-B La. Cen. Lbr. Co., Sec. 2-9-6, 2,045 ft. N, 1,930 ft. W, SE cor. ..... Tested dry 2,753 ft; arranging to deepen.

CLAIBORNE PARISH

United Gas Public Service Co.'s No. 1 Meadows, approximately 100 ft. S, center E½ E½ Sec. 13-21-5... Reaming; T.D. 6,608 ft.

DESOTO PARISH

Bailey Gants et al's No. 1 Jenkins, NW cor. SE SW Sec. 35-13-13 ..... Tested S.W.; W.O. 3,069 ft.

P. B. Dyer's No. 2 B. F. Jenkins, 330 ft. N and E, SW cor. NW SW Sec. 35-15-13 ..... Rig up.

N. B. Porter's No. 1 J. W. Porter Est., 330 ft. N and E, SW cor. SE SE Sec. 23-12-13 ..... Rig up.

RAPIDES PARISH

Byers & Collingsworth's (was A. G. Beck et al's) No. 1 Hickman-Simmons Lbr. Co., 330 ft. S, 330 ft E. NW cor. Sec. 40-4-1e ..... S.D. 1,695 ft.

SABINE PARISH

A. F. Allen's No. 1 G. W. Belton, NE cor. NW NW Sec. 33-9-13 ..... Derrick.

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NORTH LOUISIANA

S. P. Borden and others' No. 1 Pardee, SW NW Section 35-16-8, had a show for 500,000 feet of gas at 1,653-99 feet, but tested dry and was drilling at 2,895 feet. In Bossier Parish J. T. Anderson's No. 1 Leonard, SW SW Section 19-19-13, was dry on drill stem test at 2,564 feet and was coring in the red beds at 2,571 feet. H. I. Morgan's Bellevue deep test, No. 2 Smith, Section 22-19-11, was drilling lime at 5,030 feet. J. A. King and others' No. 1 Oden, NW NW Section 4-18-13, formerly carried as A. W. Phillips, was bailing and swabbing a show of oil at 1,704 feet. Location is 6 miles north of Shreveport. United Gas Public Service Co.'s No. 1 Schnitt, an old hole in Section 14-17-12, Sligo district of Bossier, that made gas at 877 feet and again at 1,965 feet in commercial quantities tested

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Nearly Half Hundred New Locations Have Been Made in Southwest Texas in the Past Week

By B. D. STEVENSON
Staff Correspondent, Southwest Texas Fields

SAN ANTONIO, Tex., July 17.—Nearly 50 new locations were announced in Southwest Texas the past week, which is about twice as many as for any week for several months and about three times as many as were being reported weekly on the average the first of the year. Most of them are wildcats, since there is no big pool development in Southwest Texas at this time. The past week saw some further extensions to the North Government Wells Pool which is gradually filling out in three directions, and while now the biggest pool in the Laredo district, is due for some further expansion. Magnolia Petroleum Co. made location for the No. 1 Hahl-Sutherland, 1,210 feet from the north line and 150 feet from the west line of Survey No. 61, which is an east offset to Storey & Seacord's No. 3 Lundell that came in the week before extending the field more than a half mile south. It has been gauged and is reported as 150 bbls. daily when choked down to the allowable of the gas production in accordance with the proration of the field.

Humble Oil & Refining Co.'s No. 6 Hahl in the north part of the field, and within 330 feet of being as far north as any, came in for 71 bbls. hourly on three-quarter inch choke at 2,320 feet, better than the average of the field, and Southwest Drilling Co.'s No. 10 Wendt, on the west side of the field, at about the same depth came in for 60 bbls. hourly in three-eighths inch choke. Both wells are about the average and are in the edge of production. On the other hand the Texas Co.'s No. 9 Wendt, on the west side of the field at the north end, came in for only 3 bbls. hourly on quarter-inch choke.

In the new pool discovered by Stewart and the Magnolia Petroleum Co., 2 miles northwest of the North Government Wells Pool, the Reynosa Oil Corp.'s No. 1 Duval County Ranch Co. in Survey No. 362, a southeast diagonal offset to the Magnolia's discovery oil well, is in the sand at the close of the week at 2,264-69 feet with casing set at 2,262 feet, and was due to drill in over the week end. The core was saturated and the hole is about the same depth as the Magnolia well, and looks sure to make some kind of a producing oil well. The Magnolia test it offsets was standardized and is making 95 bbls. of oil daily and no water.

This is not as good as the wells in the North Government Wells Pool, a few of which came in flowing at the rate of 90 and 100 bbls. hourly, but the new pool may develop better production in future wells.

The next completion of interest at the north end of the North Government Wells Pool is the Navarro Oil Co.'s No. 15 Hahl, 330 feet from the south and east lines of the northwest quarter of Survey No. 360, the first location to be made in the north half of Survey 360. It was in the sand at the close of the week at 2,260-80 feet and was drilling plugs. If a producer it will carry the line considerably north. Humble is starting the No. 7 Hahl, a diagonal southeast offset.

DeSoto to Try Again

DeSoto Oil Co. is moving 660 feet east of the No. 1 for the No. 2 Wood-Welder in Survey 211, 3 miles northeast of the North Government Wells Field. No. 1 came in a dry gas well in the Government Wells sand. It is 3½ miles east and a mile north of the Magnolia discovery well in Survey 363 and with indications of production 3 miles northeast and also 2 miles northwest of the North Government Wells Pool pushing farther north, it is difficult to say just what the conditions are going to prove to be. Some have looked on the Magnolia well on the northwest as really an extension of the North Government Wells Pool and the DeSoto's gas well may mean that it is going in that direction.

The area of the Shasta Oil Co. and Highland Oil Co.'s leases on the Peters Ranch northeast of the Kohler Pool and southwest of the Sarnosa Pool with some gas production developed, has been named by the San Antonio geologists society as the North Kohler Pool. The Shasta-Highland No. 4 Peters is now reported as a 15-bbl. well and the Windsor Oil Co.'s No. 1 Peters, a mile west of the gas wells, is a 10,000,000-foot dry gas well. In this district the next important test is the Duggan and others' No. 1 Sutherland, a half mile north of production, and late last week drilling below 2,000 feet and due to be in the pay at the close of this week.

McMullen County

Boysen & Hotchkin's No. 1 Hagist in southern McMullen County got the Government Wells sand at 2,061-2,118 feet and salt water. It had plenty of sand thickness. The V. G. Schimmel No. 2 Wulf, up in the central eastern part of the county, has been abandoned at 1,483 feet. It got the Mirando sand at 1,207 feet and the Pettus sand at about 1,440 feet and is a failure. This leaves only two tests in McMullen County on the Government Wells trend, Darby Oil Co.'s No. 1 Sling and Shumway's No. 3 Shiner.

Starr County

Everything was undecided in Starr County. Sun Oil Co.'s No. 1-B Guerra, one-half mile north of the discovery well, is down to sand depth and was testing at 2,307 feet. A sand at 2,195-2,201 feet showed some gas and it was in another sand at 2,307 feet. The discovery well produced at 2,208-32 feet. Elevation datum is not available. Over the week end it will probably be known what the new test will do. The test, a half mile south of the discovery well, was drilling around 1,600 feet at the close of the week.

Bee County

Gresham and others are about to give the Tuleta Pool in Bee County a fresh start. Their No. 1 Rapp & Hatch, a mile or so west of the Tuleta Pool, failed to get anything at 4,025-38 feet in the Pettus sand and again at 4,138 feet in the Yegua, but drilled deeper than any of the others and at 4,387-92 feet in a sand about 140 feet below the Yegua made a drill stem test that showed 400 pounds in six minutes with a heavy spray of oil and pressure increased to 450 pounds in 10 minutes When the drill stem was raised the valve failed to close and the test continued to flow oil for some time. The valve finally closed and when run out had a few joints of salt water. The total depth of the hole is 4,393 feet and the last foot was shale. The salt water has not been accounted for but the operators immediately started setting casing.

The Tuleta Pool was opened with a good well in the Pettus sand, but only a few tests around it were successful. Three or four tests went to the Yegua and got some oil but the Yegua was not a success. The new test is about a half mile southwest of nearest production in the Tuleta Field. It should be ready to drill in and test this week.

Balcones Fault Zone

One of the main features of the Balcones Fault zone this week is the new location by the Amerada Petroleum Corp. for another deep test to the Edwards lime in Frio County about 7 miles southwest of the first test which was on the Halff & Oppenheimer farm. The new test is the No. 1 Frank Diering and is 34 feet from the west line and 1,700 feet from the south line of Tract 7 in Maria Carranza Survey No. 307.

Amerada's block of 85,000 acres of leases is about 30 miles long extending from the city of Pearsall southwest into Zavala County and just beyond the southwest end of the block the Zavala Oil & Gas Co.'s No. 1 Gates at 6,050 feet has a fishing job and is still in chalk. Amerada's No. 1 Doerring is about the center of the company's block. The No. 1 Halff & Oppenheimer got the Edwards lime with a slight amount of oil at 6,302-12 feet, making mainly water.

For some months there has been much interest in these deep tests to the Edwards lime. Humble Oil & Refining Co.'s No. 1 Hardy in Wilson County at 5,026 feet late last week was in the Buda topped at 5,010 feet. Last week it went through some Serpentine but failed to make any showing except some gas.

Treating With Acid

Some success is being had treating Austin chalk wells with acid. C. J. Webster Oil & Gas Co.'s No. 1-A McCrory in Caldwell County, which came in a year or so ago, flowed a pretty good amount for a time. It was given a light treatment months ago which helped a little. It has since been given a bigger treatment and from a production of around 14 bbls. daily came up to around 60 bbls. with the well not yet cleaned out.

Ogden & Reed have treated two of their tests in the new Riddle Pool in southern Bastrop County, giving the No. 1 Talley three drums of acid and the No. 1-A C. L. Riddle six drums of acid.

This pool, which has been called the Riddle Pool by some because mainly on Riddle land, has been named by the geological society of San Antonio the North Dale Pool. It is only a short distance north of the Dale Pool, with production at about the same depth and some outlying producers between them seems to link the two together.

Deep Pay Exploration Co. of Taylor, Tex., drilled the No. 1 M. V. Lawrence in the Chapman Pool into the Edwards lime at 3,056 feet last week and failed to find pay.

Out in Medina County the Stogner No. 1 Hahn went into the Edwards at 1,230-36 feet and made a fine fresh water well and is being completed as a water well for the ranch. In Bexar County Motes-Campbell's No. 2 Pruitt, in southwestern Bexar County and a little north of the Somerset Field, went into Edwards lime at 1,820 feet and into a cavity at 1,833 feet and lost returns. It was uncertain what it would do at the time this was written.

Another Edwards lime test, the O. W. Killam's No. 1 Seitz, in northwestern Atascosa County, south of the Somerset Field at 4,037-65 feet is checked off as a failure and breaking down the rig. This test showed some oil in higher formations and for a time looked interesting.

Wildcat Operations in Southwest Texas

Week Ending July 15

ARANSAS COUNTY

Company, well, farm name, section and block—	Remarks:
Harry Traylor's No. 1 Dietzel, 330 ft. from SW and SE lines of 30-ac. tract in J. Smith Sur.	Moving in rig.

ATASCOSA COUNTY

A. Blume's No. 1 Shaw, 490 ft. from N line, 1,780 ft. from E line of 100-ac. tract in W. Farquhar Sur. No. 275	T.D. 1,996 ft; twisted off D.S.
E. C. Burton's No. 1 Smith-Mowinkle, 2,100 ft. from N line, 200 ft. from W line of F. Perez Sur. No. 173.	T.D. 350 ft; drlg.
O. W. Killam's No. 1 Seitz, 1,700 ft. from NE line, 5,150 ft. from NW line of Cruz Landin Sur. No. 45.	T.D. 4,065 ft; abd. in Edwards lime.

BASTROP COUNTY

Adams & Lyles' No. 1 Peter Goertz, 1,075 ft. from N line and 250 ft. from W line of 40-ac. tract in Andrew Mays Sur.	T.D. 2,490 ft; coring chalk.
Detroit Texas' (M. O. Rayor) No. 1 J. W. Miear, 150 ft. from N and E line of 62-ac. tract in McMillam Sur.	Drlg. wtr. well.
J. E. Emanuel's No. 1 H. Klemm, 817 ft. from W line, 200 ft. from S line of tract in R. S. Teal Sur.	T.D. 850 ft; standing.
Ca-Tex O. & G. Dev. Corp.'s No. 1 Harris, 150 ft. from NW line, 3,000 ft. from SW line of John Maxmillan Sur.	T.D. 2,312 ft; running csg.
Ca-Tex O. & G. Dev. Corp.'s No. 1 Pendergrass, 1,143 ft. from NE, 310 ft. from SE line of 130-ac. tract in Henry Warnell Sur.	Rigged up and standing.

BEE COUNTY

Nichols & Bruner's No. 1 Grover Heidenfels, 891 ft. to S line, 1,950 ft. to E line of 837-ac. tract survey, John Bryan, 4 miles S from Beeville	T.D. 5,000 ft; drlg.

BEXAR COUNTY

Amsden & Foster & Amsden's No. 1 S. A. Irrig. Farms, 600 ft. E of Kinney Road, 1,500 ft. N of Elm Creek.	T.D. 1,200 ft.; standing.
O. N. Beer's No. 1 S. W. Kearney, 150 ft. from S and E lines of 28-ac. tract in S. C. I. Peres Sur.	T.D. 1,257 ft; bailed to bottom; may deepen.
A. M. Blume's No. 1 Ridder, 300 ft. from W line, 1,000 ft. from N line of tract in Sur. No. 58, County Blk. 1,596	Ready to spud.
R. S. Boling's No. 1 J. J. Appelt, 150 ft. from N and W lines of tract in M. Uriegas Sur.	T.D. 820 ft; resumed drlg. after installing rotary.
Austin Hull's No. 1 Classen, 268 ft. from W line, 2,500 ft. from S line of tract, 12 miles N of San Antonio.	T.D. 1,810 ft; trying to run csg.
M. L. Howard's No. 1 James Watson, 500 ft. from W line, 2,000 ft. from S line, Sec. 16, B. Martinez Sur., 13 miles S from San Antonio	T.D. 2,535 ft; trying to put it on the pump.
LaSalle Oil Co.'s No. 1 City Sewage farm, 150 ft. S of Rilling Road, 450 ft. W of NE cor. of tract in D. Bustillos Sur.	T.D. 55 ft.; setting surface csg.

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Renewed Drilling Activity in Gulf Coast Area; Dozen New Tests Start in Scattered Areas

By NEIL WILLIAMS
Staff Correspondent, Gulf Coast Fields

HOUSTON, Tex., July 17.—Bolstered by the development program getting under way at Tomball and Greta and that which has been going on in several other fields, drilling activity is beginning to take on new life on the Gulf Coast. More than a dozen wildcat and semiwildcat new operations were started the past week in scattered areas, not including the above fields, and at the present rate of pickup it is probable that the amount of drilling on the coast before the close of the summer will reach the peak set during the time Conroe was at its heighth.

At this time Greta, Refugio County, is the most active district on the coast, outside of Conroe. In the latter field, however, drilling has settled to more or less routine development of the proven area and is declining steadily as drilling programs on the various leases are completed. A dozen operations now are actively under way in the Greta district, which is assuming major proportions, although at this time there are only three producing wells in the area.

Particular interest in the Greta area has been centered in Atkins & O'Neil's No. 1 Welder, J. T. McGrew Survey, 2½ miles east of the producing wells, and Vidauri Oil Co.'s No. 1 Welder, 3½ miles northeast, in view of the possibility of extensions of the producing area and connection with Humble Oil & Refining Co.'s O'Connor Pool in northern Refugio County. Developments in those two wells, however, have been disappointing. The former got salt water in sand at 4,436 feet, believed to be the same sand which is producing at Greta at 4,400 feet. The Vidauri well also tested salt water in sand at 3,522 feet and now is drilling deeper at 4,150 feet.

Atlantic Pipe Line Co. is laying a 6-inch pipe line from Greta to Refugio, a distance of 9 miles, where it will connect with the company's Refugio-Harbor Island line, providing the first pipe line outlet for the field. Atlantic Oil Producing Co. recently acquired extensive holdings in the Greta-Vidauri district. Continental Oil Co. and Texas Co. also have just purchased acreage holdings in the area. The field originally was held entirely by small independents. In view of its need for additional crude to replace the rapidly declining production at Refugio in its line from that field, Atlantic is expected to be a strong contender for oil at Greta.

Tomball Area

At Tomball, Magnolia Petroleum Co.'s No. 1 Rudel, which blew out early last week, was placed under control Friday and killed after the successful stabbing of christmas tree connections on the casing. The well, which operators were preparing to deepen at the time it blew out, at present is standing waiting on orders. It previously had been completed as a dry gasser in the sand at 5,528 feet. Location is 2½ miles north of the two oil producers which have been completed in the field.

Humble Oil & Refining Co.'s No. 1 Martens, lower W. Hurd Survey, approximately a mile west of the two oil producers, also was completed as a dry gasser the past week. A total of 43 feet and 7 inches of 5-inch screen was set in the sand at 5,589 feet. The well was produced for a time under various chokes, showing pressures ranging from 1,900 to 2,075 pounds on the tubing. It now is standing shut in.

Water, which began to show up in Humble's No. 1 Fritz Kobs, completed early the past week as the second producer and offset to the discovery well, is believed to have been corrected and no particular concern is felt over the situation. It has generally been believed that the two producers are edge wells. The completion of two dry gassers, these being north and west, respectively, from the discovery well, however, has created some speculation as to possible trends and has indicated the probability of the oil production running to the east and southeast.

With the killing of the Rudel well, Continental Oil Co. has resumed drilling in its No. 1 Petrich (Theis), east offset to the gasser. The Continental well has been shut down because of the Magnolia blowout. Humble Oil & Refining Co. has started drilling in two additional tests, Nos. 1 Amiel Dodge and Emil Schultz, both in the C. Goodrich Survey, northwest of the discovery wells. This company's No. 1 Reid, a key test east of the discovery wells, is drilling below 2,000 feet.

Stanolind Oil & Gas Co. and Amerada Petroleum Corp. have made location for a joint test, their first for the Tomball district. This will be located on the William Theis tract in the J. H. Edwards Survey, 1½ miles west and slightly north of the Magnolia Rudel gasser and will be an important test to determine the expected northwest-southeast trend of the production.

Skelly Enters Field

Skelly Oil Co. entered the Tomball district the past week with the purchase from Merry Brothers and Perini of the Schultz tract adjoining the Theis acreage on which Stanolind and Amerada have made their location. It is reported that Skelly paid as high as $1,500 an acre, part cash and part oil.

H. H. Sloan's No. 1 Peden, wildcat in the John Brock Survey, 10 miles northeast of the Tomball Field, and which had indicated the existence of a possible twin structural condition to Tomball, was abandoned the past week after testing salt water in sand and shale at 6,008 feet. It is southeast of the Indian Hill Oil Co.'s No. 1 Schweinle, William White Survey, the original Cockfield sand test drilled in the Tomball-Huffsmith district and which started the active lease play when it encountered sizable gas showings in the sand.

Southwest of the Tomball Field, Aven Oil Co., headed by N. M. Yoast, has taken over the Smith and Lavender wildcat on the Herman Teske land in the J. Duckworth Survey, near Cypress, and is prepared to carry the hole down to the Cockfield. Late in the week the test was drilling below 3,250 feet.

Harris County

Cockburn Oil Corp. is rigging up for a deep test on its geophysical block in southwestern Harris County, southeast of Barker. This test is located on the C. Marcus land in the William Hardin Survey, which is approximately 15 miles west of Houston. In addition to this new one, there now are a half dozen other wildcats, outside of Tomball, drilling or rigging up in Harris County.

Livingston Field

Of importance in the Livingston district of southern Polk County, where another Cockfield field is in the making, was the pending trade between Dick Schwab, discoverer of the field, and Gem Oil Co., controlled by the Josey interests. Negotiations were reported as being virtually completed for the sale by the former operator of a half interest in his properties to the Gem Oil Co., the deal involving approximately 800 acres on which are the discovery well (a wet gasser), one producing oil well and a third well, now in process of completion as a gasser. The reported terms call for a cash payment of $150,000 to Mr. Schwab and an oil payment of $200,000.

The negotiations also provide for the formation of the Polk Counuty Oil Co. by the Gem Oil Co. and Mr. Schwab to operate the properties, and also an affiliated company, the Polk County Pipe Line Co., which will construct a 6-inch pipe line from the field to Goodrich, 6 miles west of the field on the railroad, where loading rack facilities and storage will be built. The new companies will have a joint capitalization of $100,000, of which $50,000 will be paid in oil by Mr. Schwab and $50,000 by the Gem Oil Co. Surveys for the right of way for the pipe line already have been completed by Mr. Schwab.

In field developments at Livingston, Dick Schwab's No. 2 Holmes-Davis made a seven-minute drill stem test of the sand at 4,320-94 feet, gauging 650 pounds gas pressure through a half-inch choke. It also showed some salt water but it is possible the well will make equally as good a gasser as the discovery well. It is southwest of the latter well and an east offset to Shell Petroleum Corp. and Schwab's No. 1 Davis-Holmes, which was abandoned because of water although it made some oil. Drilling of the second gasser was forced by lease obligations. Shell Petroleum Corp.'s No. 1 Munson, west offset to the same company's No. 1 Davis-Holmes, a producing well, has picked up the pay and at a total depth of 4,320 feet is standing with 7-inch casing cemented at 4,282 feet.

Shell Pipe Line Co. now is running 700 bbls. daily from each of the two producing wells at Livingston, the production being taken to Goodrich through the company's 8-inch stub, and thence to the Shell Petroleum Corp.'s refinery at Houston through the company's trunk line. The two wells are Dick Schwab's No. 1 Craig and Shell's No. 1 Davis-Holmes. The former is producing through a twenty-one-sixty-fourths inch choke and has maintained a consistent pressure, which now is of 1,120 pounds on the casing and 680 pounds on the tubing, or a little better than when the well was completed.

The recent purchase by Gulf Production Co. of approximately 250 acres on the Bergman property in the Shadburn Survey, several miles southeast of the Livingston Field, in which deal $1,000 an acre, half cash and half oil, was paid, has stimulated interest in that area. The past week Sunbby and associates acquired a 10-acre tract adjoining the Gulf

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Gulf Coast Fields and Wildcats

Week Ending July 15

Company, farm and location—	Remarks
DAMON MOUND—BRAZORIA COUNTY	
Intercoastal Oil Co.'s No. 11 Wisdom, 350 ft. E of No. 6, Blk. 51, Lot D, A. Durst Sur.	No report.
Sinclair Prairie Oil Co.'s No. 31-A Bryan, 155 ft. N. 45 deg. E of SW cor. of Blk. 28, Masterson Subd., and 140 ft. S. 45 deg. E. A. Durst Sur.	T.D. 7,586 ft; standing.
MANVEL—BRAZORIA COUNTY	
The Texas Co.'s No. 2 Davis, 300 ft. out of S cor. Lot 42, H. N. Little Sur.	Drlg. hard lime 4,846 ft.
The Texas Co.'s No. 3 Ewing, H. N. Little Sur., 250 ft. from E line, 400 ft. from S line of Lot 30	Sand S.O. 3,870-89 ft; cmtd. 9⅝-in. csg. 3,819 ft; drilled plug and set screen.
BARBERS HILL—CHAMBERS COUNTY	
Mills Bennett Prod. Co.'s No. 1-C Barber, Henry Griffith League, 100 ft. E. 30 ft. N of SW cor. of tract.	Drlg. sand 1,079 ft.
Mills Bennett Prod. Co.'s No. 5-A Wilburn (W.O.), Henry Griffith League	Cutting and pulling screen 4,407 ft.
Mills Bennett Prod. Co.'s No. 3 Kirby (W.O.), 645 ft. E and 40 ft. S of NW cor. lease	Set 146 ft. of 7-in. (O.D.) screen, 5,194 ft; comp. producer.
Sinclair Prairie Oil Co.'s No. 9 Wilburn (W.O.), Henry Griffith League	Set 64½ ft. of 5-in. screen 5,124 ft.; comp. 384 bbls. P.L. oil; ½-in. choke, 27.4 gravity.
Sinclair-Prairie Oil Co.'s No. 14 Wilbur (W.O.), Henry Griffith League	T.D. 3,802 ft; rebuilding derrick after blowout.
Sun Oil Co.'s No. 12 Wilburn (W.O.), Wm. Hodges Sur.	Drlg. shale and lime 4,634 ft.
Sun Oil Co.'s No. 17 Wilburn, Henry Griffith League, 150 ft. W of No. 6 and 50 ft. S of N line	Rigging up.
The Texas Co.'s No. 8 Wilburn (W.O.), Henry Griffith League	Pulling rods and tubing 5,047 ft.
Texas Gulf Prod. Co.'s No. 11-B Kirby, Henry Griffith League, 411 ft. from S line, 473 ft. from W line of tract	Drlg. sand and shale 934 ft.
Yount Lee Oil Co.'s No. 20 Chambers County, Wm. Bloodgood Sur., 350 ft. from NW line and 50 ft. from SW line of lease	T.D. 4,732 ft.; sidetracking in hard shale and lime 4,255 ft.
Yount Lee Oil Co.'s No. 21 Chambers County (W.O.), Wm. Bloodgood Sur.	Sand and lime 2,249 ft; cmtd. to 2,154 ft; sidetracked and drlg. sand and lime 2,132 ft.
Yount Lee Oil Co.'s No. 22 Chambers County, Wm. Bloodgood Sur., 200 ft. from W line, 262½ ft. from N line of lease	T.D. 2,657 ft; cmtd. to 2,236 ft, drlg. salt 2,578 ft.
LOST LAKE—CHAMBERS COUNTY	
Pure Oil Co.'s No. 13 Mayes, E. H. R. Wallis Sur., 205 ft. N and 425 ft. W of No. 1 Lost River	Drlg. sand and shale 1,179 ft.
RABBS RIDGE—FORT BEND COUNTY	
Cullen & West's No. 3 Whitmore, Samuel Kennedy Sur., 301 ft. from S line, 139 ft. from W line of tract	Comp. 57 bbls. per hour; ⅝-in. choke, 5,398 ft.

California Is Disturbed by Cargo of Gasoline on Way From Texas Ports to the Pacific Coast

By L. P. STOCKMAN
Staff Correspondent, California Fields

LOS ANGELES, Calif., July 15.—Considerable anxiety is being manifested due to the expected arrival next week of an additional cargo of Texas gasoline on the Pacific Coast. This shipment, consisting of approximately 68,000 bbls. of third grade gasoline, was lifted at Galveston, by the tanker Papoose, which is scheduled to discharge part of the cargo in the San Francisco Bay region and the remainder at Seattle, Wash. Pacific Coast marketers are especially perturbed because of the consequences from the importation of three cargoes of Texas gasoline into the Pacific Northwest late last year, as this disrupted the price structure of refined oil and ultimately forced buyers to reduce California crude prices.

It is questionable whether President Roosevelt's executive order prohibiting the transportation of illicitly produced oil in interstate or foreign commerce will preclude importation of Texas gasoline into Pacific Coast territory, unless the order is applicable to hot oil produced previous to the date of prohibition. Developments during the next two weeks are expected to determine the future price structure on the Pacific Coast until the code of fair competition becomes effective. If it appears probable that the code will become an actuality in the near future, California buyers will probably attempt to maintain existing prices for crude.

The ban on interstate or export shipments of oil produced in excess of the quota prescribed by a duly authorized agency is not applicable to California as this state does not have adequate legislation to regulate production. Up to the present time the curtailment program in California has been a mutual undertaking as the electorate of the state voted down the Sharkey oil control bill in May, 1932. The only regulatory legislation on the statute books in California is the so-called California gas conservation law which prohibits the waste of natural gas. This bill is a dead issue at present due to the fact that gas waste has been practically eliminated and enforcement proceedings dropped at Kettleman Hills.

Ratify Production Code

Long Beach operators have voted to join with other California fields by ratifying the N.I.R.A. code. Huntington Beach and Playa Del Rey operators by a mail ballot previously endorsed the code and with the approval of Long Beach operators every field in the state has indicated its acceptance. On the subject of specific regulations respecting labor, C. C. Spicer of the Republic Petroleum Co. proposed a resolution which recommended the 40-hour week of five days at eight hours per day and a minimum wage of 50 cents per hour. This resolution, which was unanimously endorsed, provides "that the oil producers of the Long Beach Field pledge themselves to do their part in increasing employment believing it possible for the oil industry and its allied businesses to increase employment in this state by 25,000 men."

A nominating committee, named by Bruce Barkis, temporary chairman, selected a list of 15 committeemen to represent all Long Beach operators as the permanent field committee to handle the district under the new order. Seven additional names were added to the list presented by the nominating committee and a poll of all producers in the field will be conducted immediately to select 15 names from the 22 thus nominated. When elected, the field committee will choose its own chairman and vice chairman, who will represent the district on the Central Proration Committee, the administrative group for California, as member and alternate. Directors of the California Oil Producers Sales Agency have unreservedly approved the code and General Manager Rush M. Blodget was instructed to telegraph the action taken to President Roosevelt, Gen. Hugh S. Johnson, in charge of the national industrial recovery administration, and to the Emergency National Committee, appointed to represent the oil industry.

Drilling Permits

Oil field operations reported to R. D. Bush, state oil and gas supervisor, during the week ending July 8, show 104 notices to drill new wells, compared with 65 during the preceding week. The sudden increase of notices of intention to drill filed since June 10 is not indicative of a corresponding increase in drilling activities, which is approximately the same as last year. The filing of notices far in advance of actual drilling is evidently an attempt to avoid proposed Federal regulation of drilling operations. Of the 104 notices filed this week, 12 were for wells in the Huntington Beach Field, 6 at Dominguez, 4 at Long Beach, 4 at Playa Del Rey, 4 at Richfield, 3 in the Montebello Field, 1 at Newhall, 4 projected tests in Los Angeles County, 7 in the Sespe Field, 4 in the Ventura Avenue Field, 28 at Lompoc, 2 in the Santa Barbara Mesa Field, 4 at Coalinga and 21 in the fields of Kern County. The total notices filed this year to date is 410, compared with 170 at the same date last year. The large number in the Lompoc district of the Santa Maria Field is due to 7 notices filed by the Meganos Oil Co., 13 by K. L. Listle and 8 by D. A. Densel.

Huntington Beach

Four wells were put on production in the Seventeenth Street town lot area of the Huntington Beach Field during the week and a check indicates probability that completion of new wells and recompletion of former producers will be a frequent occurrence during the next 60 days. W. K. Co. completed its No. 1 Huntington flowing 770 bbls. of clean 24.6 gravity oil per day from 4,475 feet and will probably resume drilling operations on No. 2 Huntington, temporarily suspended at 4,345 feet. The latter well is a straight hole and its completion will be delayed for several weeks pending deflection of the hole. Richrow Oil Co.'s No. 1, bottomed at 4,501 feet and finished with a 4¾-inch liner carrying 700 feet of perforated, was brought in under a natural flow doing 671 bbls. of clean 24.5 gravity oil and 980,000 feet of gas per day.

Wilshire Oil Co. recompleted No. 1 Huntington flowing 690 bbls. of 24.8 gravity oil and approximately 1,000,000 feet of gas per day after the hole had been redrilled and whipstocked to 4,334 feet. A short time previous Wilshire recompleted No. 6-A Huntington, which is showing a settled production of 475 bbls. per day. Early in the week Doyle & McKeon made a production test on No. 1 Doyle from 4,350 feet after finishing the hole with a 4¾-inch liner including 480 feet of perforated, but the well failed to result in a natural flow. It was put on a compressor and was brought in doing 202 bbls. of 24.5 gravity oil cutting 4.1 per cent. It was subsequently killed, however, and the tubing pulled to reset the packer. Doyle & McKeon's No. 1 Doyle was originally No. 7 of George F. Getty, Inc., and produced for several years before present work was undertaken. Vicaroo Oil Co. has shut in No. 1 Huntington as McVickers & Rood are producing their allowable quota from Macroo Oil Co.'s No. 1 Smith, which is flowing 2,330 bbls. of 25.1 gravity oil per day from 4,450 feet. No. 1 Smith is the largest producing well in the Huntington Beach town lot area.

Another battle over drilling operations on the Huntington Beach tidelands looms as a result of the granting of a 30-year drilling lease to the Southwest Exploration Co. by the Huntington Beach city council. The electorate of the state voted against the drilling of Huntington Beach tideland in November, 1932, by a substantial majority and an affirmative vote can hardly be anticipated when the issue is again submitted to the voters. The Huntington Beach city council authorized Mayor Conrad and City Clerk Furr to sign a lease submitted by E. E. Pyles, head of the land department of the Hancock Oil Co. Two leases were submitted to the city council, the second one by J. C. Argue, representing Signal Oil & Gas Co., which holds a lease from the city of Huntington Beach covering drilling operations on several streets in the town lot area. The lease accepted gives exclusive rights to the Southwest Exploration Co. to develop tidelands between Seventeenth Street and the westerly city limits and an option to drill on tidelands between Tenth and Seventeenth Streets. The lease calls for the drilling of five wells at 90-day intervals, with the first to be started within 60 days. The city has been attempting for several years to secure permission from the state to develop proved tidelands within the incorporated limits. The substantial production being developed by operators in the Seventeenth Street town lot area, together with the fact that Standard Oil Co. has a string of producing wells along the beach, definitely proves Huntington Beach tideland as productive, but the municipality is unable to proceed with development due to the adverse decision by the electorate.

Kettleman Hills

Standard Oil Co. completed another new producer in the Kettleman North Dome Field early in the week when No. 81-27-Q was brought in flowing 2,990 bbls. of 36.2 gravity oil and 2,975,000 feet of gas per day. This well was originally bottomed at 7,977 feet but was plugged back to 7,940 feet because of water trouble. Standard's No. 25-35-J, finished last week flowing 1,300 bbls. per day, has built up to 3,460 bbls. of 36.2 gravity oil and 2,410,000 feet of gas per day. No. 8-21-J, which was given a preliminary production test about two weeks ago after being plugged back from 8,217 feet to 8,130 feet, has not yet been returned to production as the company has been running a water witch to determine the source of water. Superior Oil Co.'s No. 6 Huffman, a recent completion, has shown a consistent improvement, with the result that current production, 1,510 bbls., is exceptionally clean. Subsequently, Superior spudded in No. 5 Huffman and has reached the 2,000-foot level. Union Oil Co. is getting ready to recomplete No. 2 Amerada King in the Kettleman North Dome Field, following completion of some reconditioning work. Kettleman North Dome Association has concluded drilling operations on No. 32-32-J and present plans call for a production test within 10 days. Dawn Petroleum is grading location for a new well to be drilled on the Faust property in Section 36-21-17 and this well, together with J. E. Courtner's test in Section 32-22-19, should be under way within a week or so. The latter well has been standing suspended for a long time at 7,598 feet.

Mountain View

Within 30 days operations in the Mountain View Field of Kern County are expected to show a substantial increase. Shell Oil Co. has staked location for eight additional wells in the Mountain View Field and several of these are expected to be spudded shortly. Shell Oil Co., although it did not complete the first commercial producer, is in reality

TANKER SHIPMENTS FROM LOS ANGELES TO DOMESTIC AND FOREIGN PORTS

	July 1—		June 24—			
	Total this week	Daily average	Total last week	Daily average	This year to date	Same time last year
Intercoastal-domestic—						
Crude oil	.....	.....	.....	.....	75,035	.....
Fuel oil	.....	.....	.....	.....	805,661	.....
Diesel and gas oil	.....	.....	.....	.....	1,035,064	147,070
Gasoline	420,150	60,027	70,807	10,115	4,777,509	4,396,351
Kerosene	5,976	854	.....	.....	502,970	164,372
Foreign exports—						
Crude oil	287,955	41,136	65,375	9,054	3,773,689	4,614,853
Fuel oil	281,237	40,180	141,771	20,253	3,951,694	4,597,950
Diesel and gas oil	84,945	12,135	207,453	29,665	1,848,331	1,391,215
Gasoline	302,963	43,153	303,429	43,347	3,331,754	4,947,530
Kerosene	177,014	25,288	.....	.....	999,827	1,335,636
Naphtha distillates	.....	.....	.....	.....	.....	120,075
Coastwise-domestic—						
Crude oil	.....	.....	138,091	15,299	4,456,650	7,338,303
Fuel oil	259,351	37,050	291,711	41,673	5,259,307	6,430,748
Diesel and gas oil	34,712	4,959	31,204	4,458	748,415	703,864
Gasoline	244,015	34,859	215,651	30,807	6,178,407	7,974,194
Kerosene	3,521	503	4,397	628	108,615	92,695
Naphtha distillates	.....	.....	.....	.....	27,651	.....

TANKER SHIPMENTS FROM SAN FRANSCICO TO DOMESTIC AND FOREIGN PORTS

Intercoastal-domestic—						
Diesel and gas oil	.....	.....	.....	.....	286,531	231,170
Gasoline	.....	.....	.....	.....	506,965	480,135
Kerosene	.....	.....	.....	.....	482,430	.....
Lubricants	.....	.....	.....	.....	16,400	16,824
Foreign exports—						
Crude oil	.....	.....	.....	.....	999,943	707,651
Fuel oil	.....	.....	.....	.....	361,366	582,109
Diesel and gas oil	.....	.....	.....	.....	584,718	352,107
Gasoline	64,910	9,273	150,425	21,489	2,311,554	1,911,725
Kerosene	26,829	3,834	46,084	6,584	552,019	548,853
Lubricants	1,501	214	.....	.....	33,427	24,954
Coastwise-domestic—						
Fuel oil	73,412	10,487	177,422	25,346	1,742,254	1,462,445
Diesel and gas oil	.....	.....	.....	.....	166,162	238,094
Gasoline	82,337	11,762	.....	.....	1,722,568	1,832,215
Kerosene	.....	.....	.....	.....	73,619	65,756
Lubricants	.....	.....	.....	.....	2,751	.....

the real discoverer of the Mountain View Field. This company definitely proved the existence of commercial production in the upper zone a few years ago during drilling No. 1 Porter Day. Due to lease requirements, the company was obligated to drill a large number of new wells within 90 days after completion of the discovery well. It is reported the company chose to drill in search of deeper production rather than engage in an abnormally large drilling program, as this work would have seriously impaired the curtailment program and undoubtedly have led to substantially lower prices for crude and refined oil. The company's action will ultimately prove beneficial to lessors in the Mountain View Field, notwithstanding royalty checks have been delayed a little. The company is apparently making preparations to fulfill lease requirements at an early date and, in keeping with Shell's policy, will adequately protect its lessor's property from undue drainage. Mohawk Petroleum, with two additional wells scheduled to get under way in the near future, is apparently reluctant to admit defeat in its initial well on the Hood lease, as it has resumed work in No. 1 and after plugging back to 5,500 feet will perforate the 5¾-inch at 5,450-5,500 feet for another production test before suspending work. Mohawk failed to encounter the Santa Margarita and has plugged the hole back to test out the lower part of the Kern River series.

San Miguelito

The future importance of the San Miguelito Field of Ventura County is still in the balance. Continental has not yet picked up a sufficient thickness of oil sand in No. 2 Grubb to justify expectation of commercial production. This well picked up a little oil sand immediately below 6,800 feet, at which point the 9⅝-inch water string was landed, but soon passed into a shale body which predominated down to approximately 7,265 feet. Down to the present depth, 7,315 feet, the company has penetrated approximately only 40 feet of oil sand with the result that the formation during the next 200 feet will probably be the determining factor. Honolulu Consolidated's No. 1 Valenzuela, about three locations southwest of Continental's discovery well, No. 1 Grubb, has all the earmarks of a dud at 7,190 feet, as it has already drilled through the V.L.&W. shale and has not encountered the oil sand found below this shale body in No. 1 Grubb. The unfavorable outlook for No. 1 Valenzuela is especially pronounced because No. 2 Grubb, approximately midway between this well and Continental's discovery, No. 1 Grubb, does not look particularly promising. Pending the outcome of drilling operations on No. 2 Grubb of Continental and No. 1 Valenzuela of Honolulu Consolidated, Chanslor-Canfield Midway Oil Co. has temporarily suspended drilling operations on No. 3-A Hobson at 4,167 feet.

Elwood

Two new wells are expected in the Elwood Field of Santa Barbara County in the week and another, Barnsdall and Rio Grande's No. 9-A on tideland permit No. 78, is expected to be finished within a fortnight. Two projected completions in Elwood are Bankline Oil Co.'s No. 10, on tideland permit No. 88 and Caroline Spalding's No. 7 on tideland permit No. 93. Standard Oil Co. has cemented a string of 11¾-inch in its Goleta wildcat, No. 1 Chase & Bryce, at 2,190 feet, and is expected to resume drilling within several days. Monterey Exploration Co. has started rig construction for No. 1 Hollister, a wildcat in the Point Concepcion district of Santa Barbara County, on or before August 1. In the Purisima district of Santa Barbara County, Meganos Oil Co. is rigging up rotary equipment on its first test to be drilled in this section. A few miles outside of the city of Santa Maria, A. N. Macrate recently staked location on the Rice property in Section 23-10-34, but material has not yet been placed on the ground. General Petroleum has just reached the 8,100-foot level in No. 15-A Barnard, a deep test which the company is drilling down to the 57 zone, proved by the Associated approximately two years ago, but still has about 750 feet of hole to make before completion.

Lost Hills-Belridge

In the Lost Hills Field of Kern County Associated Oil Co. is drilling at 4,750 feet in No. 1 Williamson, a deep test which the company is drilling in conjunction with Richfield Oil Co. The Temblor in this well was found to be wet and while the present objective is the underlying Eocene, the company would not be averse to making a production test if the lower part of the Temblor showed evidence of commercial production. The formation during the past 100 feet has been a coarse gray sand which reacts favorably to an acetone test but does not appear to justify a production test. In the North Belridge Field, Continental is making preparations to drill out the cement in No. 4 Result and complete this well in the Temblor at an early date. Casa Mira Oil Co.'s No. 1 Theta, an outpost in Section 29-28-20, is rotating in the Maricopa brown shale at 3,275 feet. General Petroleum is reaming No. 1 Lovitt, a wildcat north of the McKittrick Field, at 993 feet, preparatory to testing out a shallow zone. Actual work has not yet been started on either of the tests to be drilled in the Union Avenue and Comanche Point districts, along the Bear Mountain fault zone, but something definite is expected in the very near future. Spencer-Dickey Petroleum Co. has recently acquired the lease and equipment of Nevada County Oil Co. and 40 acres from Revenue Oil Co. in the old Kern River Field, and an attempt will be made to develop commercial production. There are a number of old pumping wells on both properties. The Kern River Field is of the water-drive type and operators are obliged to maintain maximum production to keep ahead of the water and thus preclude the flooding of their respective properties. Due to the relatively large volume of fluid pumped, lifting costs are necessarily large, but with efficient management and the maintenance of a satisfactory crude price structure, profitable operation is possible.

Dominguez

Several new wells are scheduled to begin drilling in the Dominguez Field of Los Angeles Basin, one of which, No. 4 Childs of the Republic Petroleum, is expected to begin making hole in a day or two. The rig to be used in the drilling of No. 4 Childs was skidded from No. 3 Childs, which Republic Petroleum recently abandoned as a wet job. Mutual Oil Co. has staked a location in the southwest corner of the Carpenter lease in the northern part of the field and rig material has been ordered. Shell has indicated its intention of starting five new wells on the Reyes lease but operations on these projects will probably be spread out over several months. Sunrise Petroleum is nearing the 3,000-foot level in its No. 1 Dominguez, on property developed by the Marland Oil Co., but subsequently quitclaimed because of edgewater. Officials of Sunrise are of the opinion commercial production can be developed by careful selective drilling. To accomplish this, the company must limit its activities to a relatively small thickness of formation, as Marland's experience indicates it is not possible to produce from the entire thickness of the productive horizon. Republic Petroleum several months ago revealed the feasibility of developing commercial production by producing from a limited thickness of oil sand which was carefully protected by a series of cement jobs both below and above the portion of the horizon selected as offering the greatest possibility.

In the Rosecrans Field of Los Angeles Basin, Cypress Petroleum has effected a satisfactory water shutoff in No. 3 Higgins at 5,660 feet and the company is drilling in what appears to be the pay at 5,701 feet. No. 3 Higgins is scheduled for completion in the Zins zone and, judging by previous work, should succeed in getting commercial production. Earlier this year, Barnsdall recompleted No. 5-A Rosecrans in the Zins zone at 5,917 feet, but the production, 125 bbls. per day, was somewhat disappointing as it showed a cut of approximately 10 per cent. Cypress Petroleum has landed the water string in No. 3 Higgins a little deeper than has generally been the custom in the hope of excluding water trouble in the upper part of the Zins zone. Lucky Strike Oil Co. has completed No. 4 Signal, a new well in the Long Beach Field, pumping 169 bbls. of 26.4 gravity oil cutting 3 per cent from 4,405 feet. Several new wells and reconditioning jobs are scheduled for early completion in Long Beach during the next 15 days, but this is not expected to have any great effect on field production as Long Beach appears to be definitely headed for a lower settled production. Texas Co. has abandoned its wildcat in the Pico district of Los Angeles Basin at 2,234 feet, following correlation work which showed that a definite geological marker was substantially lower than anticipated and greatly below the depth at which this distinguishing marker was logged in adjacent tests.

TIDE WATER RUNS

Tide Water Oil Co. reports that its 288-mile oil pipe line from Bradford, Pa., to Bayonne, N. J., now is running at 72 per cent of the system's daily capacity of 16,000 bbls., a new high for the year and comparing with a low point of 52 per cent reached in September last year.

IMPORTANT SOUTHERN CALIFORNIA WILDCATS

Company, well, location—	S.T.R.	Depth	Status:
Palm Ridge Oil Co., No. 1 Palma, Los Angeles Co.	2- 2-15	5,961	sd. sh. drilling
Baldwin Oil Co., No. 9 Inglewood, Los Angeles Co.	7- 2-14	5,863	suspended
Kupfer, A. M., No. 1 Inglewood, Los Angeles Co.	17- 2-14	5,863	plugging
Pacific Gulf, No. 1 Athens, Los Angeles Co.	19- 2-13	6,094	suspended
Pacific Oil Inv. Co., No. 1 Wilmington, Los Angeles Co.	28- 4-13	3,640	cleaning out
Sunrise Pet. Co., No. 1 Dominguez, Los Angeles Co.	3- 4-13	2,583	sd. sh. drilling
Peoples O. & G. Co., No. 1 Compton, Los Angeles Co.	31- 2-13	rig	rigged up
Oakes & Mead, No. 1 Lyndwood, Los Angeles Co.	31- 2-12	4,940	cleaning out
Texas Co., No. 1 Pico, Los Angeles Co.	13- 2-12	2,234	abandoned
Community Oil Co., No. 1 Montebello, Los Angeles Co.	34- 1-11	5,281	suspended
Universal Consd., No. 1 Montebello, Los Angeles Co.	5- 2-11	6,311	suspended
Andrus & Hutcheson, No. 1 El Monte, Los Angeles Co.	11- 1-11	1,792	suspended
Signal Pet., No. 1 Puente, Los Angeles Co.	14- 2-10	4,908	cleaning out
Willetts Pet., No. 1 Saugus, Los Angeles Co.	35- 5-16	2,074	suspended
Smith, J. A., No. 1 Saugus, Los Angeles Co.	32- 5-17	3,515	suspended
Alpha Oil Co., No. 1 Calabasas, Los Angeles Co.	22- 1-18	1,199	suspended
Hudson Pet., No. 1 Newhall, Los Angeles Co.	1- 3-16	1,565	testing
Lester, C. T., No. 1 Newhall, Los Angeles Co.	17- 3-16	....	location
Ball, W. T., No. 1 Newhall, Los Angeles Co.	34- 3-16	3,582	suspended
Big Four Oil Co., No. 1 Newhall, Los Angeles Co.	32- 4-16	2,230	suspended
Marble, Willard, No. 1 Van Nuys, Los Angeles Co.	6- 2-16	2,000	suspended
Nuell Co., No. 1 Newport, Orange Co.	29- 6-10	3,901	suspended
Mineral Expl., No. 1 Capistrano, Orange Co.	8- 8- 7	4,302	suspended
Saddleback Oil Co., No. 1 El Toro, Orange Co.	3- 6- 7	80	suspended
Placentia Dev. Co., No. 1 Placentia, Orange Co.	31- 3- 9	rig	rigged up
Brown, W. F., No. 1 Atwood, Orange Co.	26- 3- 9	....	material
Bartholomae Oil Co., No. 1 Coyote, Orange Co.	22- 3-10	....	location
Spindle Top Oil Co., No. 1 Salton Sea, Riverside Co.	25- 7-10	3,590	cleaning out
Keeley, H. J., No. 1 Corona, Riverside Co.	31- 4- 6	625	suspended
Great American Pet., No. 1 Chino, San Bernardino Co.	18- 2- 8	2,467	hd. sd. drilling
Great American Pet., No. 2 Chino, San Bernardino Co.	18- 2- 8	704	sd. sh. drilling
McCarthy, C. F., No. 1 Chino, San Bernardino Co.	14- 3- 6	492	suspended
Mason Oil Co., No. 1 Salton Sea, Imperial Co.	1-17-15	680	suspended

IMPORTANT NORTHERN CALIFORNIA WILDCATS

Company, well, location—	S.T.R.	Depth	Status:
Standard Oil Co., No. 1 Goleta, Santa Barbara Co.	20- 4-28	2,200	cemented
Monterey Expl., No. 1 Point Concepcion, Santa Barbara.	33- 5-33	....	material
Duell, O. S., No. 1 Naples, Santa Barbara Co.	7- 4-29	5,132	suspended
Bolsa Chica, No. 1 Coal Oil Point, Santa Barbara Co.	tideland	4,089	suspended
Meganos Oil Co., No. 1 Purisima, Santa Barbara Co.	28- 8-34	rig	rigging up
Cuyama Oil Co., No. 1 Cuyama, Santa Barbara Co.	12-10-27	2,387	suspended
Woodrow Pet., No. 1 Rincon, Ventura Co.	4- 3-24	7,292	suspended
Indian Pet., No. 1 Rincon, Ventura Co.	tideland	3,484	pump 25 b/d
Bardeen Pet., No. 1 Fillmore, Ventura Co.	13- 4-19	2,801	reaming
Hancock Oil Co., No. 1 Fillmore, Ventura Co.	13- 4-19	1,622	cemented
Oil Ridge Oil Co., No. 1 Fillmore, Ventura Co.	1- 4-19	....	build road
Kneiper & Atha, No. 1 Bardsdale, Ventura Co.	7- 3-19	816	suspended
Williamson & Donaher, No. 1 Simi, Ventura Co.	36- 3-18	107	hd. sd. drilling
Honolulu Consolidated, No. 1 Miguelito, Ventura Co.	22- 3-24	7,194	hd. sh. drilling
Continental, No. 2 Miguelito, Ventura Co.	23- 3-24	7,200	oil sand
C. C. M. O., No. 3-A Miguelito, Ventura Co.	22- 3-24	4,166	suspended
Midlands Pet., No. 1 Ojai, Ventura Co.	9- 3-23	7,841	redrilling
Wilshire Oil Co., No. 1 Sulphur Mountain, Ventura Co.	20- 4-21	2,000	br. sh. drilling
Mosher, J. W., No. 1 Santa Paula, Ventura Co.	22- 4-21	1,300	br. sh. drilling
Petro Producing Co., No. 1 Timber Canyon, Ventura Co.	18- 4-20	4,747	plugging
Las Posas Pet., No. 1 Las Posas, Ventura Co.	22- 3-20	3,979	to deepen
International Oil Dev., No. 1 Conejo, Ventura Co.	33- 2-20	2,770	fishing
Hub Pet., No. 1 Gould Hills, Kern Co.	23-29-21	6,780	br. sh. drilling
Purman, T. H., No. 2 Gould Hills, Kern Co.	27-29-21	335	suspended
General Pet., No. 1 McKittrick, Kern Co.	10-30-21	992	reaming
Casa Mira Oil Co., No. 1 Belridge, Kern Co.	29-28-20	3,318	br. sh. drilling
General Pet., No. 1 Belridge, Kern Co.	30-28-21	3,360	suspended
Cumberland Oil Co., No. 2 Devils Den, Kern Co.	17-26-18	3,270	suspended
Holloway, A. S., No. 1 Devils Den, Kern Co.	11-25-18	1,848	suspended
Lincoln Pet., No. 1 Devils Den, Kern Co.	10-25-18	1,513	cleaning out
Hanna, Tom, No. 1 Devils Den, Kern Co.	25-25-18	3,516	suspended
Pyramid Hills Oil Co., No. 1 Devils Den, Kern Co.	24-25-18	3,974	suspended
Fowler, F., No. 1 Blackwell Corner, Kern Co.	15-26-19	3,170	suspended
Associated, No. 1 Lost Hills, Kern Co.	2-26-20	4,711	gr. sd. drilling
Howells Bros., No. 1 Round Mountain, Kern Co.	32-28-29	621	hd. sh. drilling
Seale, Fred, No. 1 Edison, Kern Co.	5-30-29	....	location
Caravel Pet. Co., No. 1 Edison, Kern Co.	19-30-30	1,801	redrilling
White, L. L., No. 1 Union Avenue, Kern Co.	6-30-28	....	location
Shell Oil Co., No. 2 Mountain View Kern Co.	29-30-29	1,596	sd. sh. drilling
Hogan, Dana, No. 3 Mountain View, Kern Co.	29-30-29	....	location
Bankline Oil Co., No. 1 Mountain View, Kern Co.	4-31-29	3,007	sd. sh. drilling
Barnsdall Oil Co., No. 1 Mountain View, Kern Co.	31-30-29	rig	rigging up
Petrol Prod. Co., No. 1 Mountain View, Kern Co.	29-30-29	....	location
Long Beach Pet., No. 1 Mountain View, Kern Co.	29-30-29	312	sd. drilling
Jergins Trust, No. 1 Mountain View, Kern Co.	29-30-29	....	location
Mohawk Pet., No. 1 Mountain View, Kern Co.	30-30-29	5,958	suspended
Mohawk Pet., No. 2 Mountain View, Kern Co.	30-30-29	mtl.	building rig
Comanche Oil Co., No. 1 Comanche, Kern Co.	15-32-29	....	location
Badger Oil Co., No. 1 Wheeler Ridge, Kern Co.	31-11-19	2,880	br. sh. drilling
Gatton & Luethe, No. 1 Madera, Madera Co.	22-10-17	2,390	suspended
Russ Oil Synd., No. 1 Kingsburg, Fresno Co.	20-13-11	606	sd. sh. drilling
Bergman, Harry, No. 1 Kingsburg, Fresno Co.	12-12-11	4,148	recemented
Graham & Loftus, No. 1 Raisin City, Fresno Co.	20-15-15	5,806	gr. sd. drilling
Emerich Oil Co., No. 1 Mendota, Fresno Co.	35-13-13	3,760	sd. sh. drilling
Western Gulf, No. 1 S. P., Fresno Co.	3-17-15	rig	rigging up
Hogan, Dana, No. 1 Joaquin Ridge, Fresno Co.	28-20-16	5,804	gr. sh. drilling
Kent & McDonald, No. 1 Carrizo Plains, San Luis Obispo	3-32-22	3,830	suspended
Paso Robles Oil Co., No. 1 Edna, San Luis Obispo Co.	27-27-11	4,191	suspended
Guess, E. B., No. 1 Corcoran, Kings Co.	7-21-21	6,127	suspended
Brown, A. M., No. 1 Cloud, Kings Co.	10-22-19	1,205	recemented
Brown, A. M., No. 3 Cloud, Kings Co.	10-23-19	501	sd. sh. drilling
Dudley Dome Oil Co., No. 1 Dudley Ridge, Kings Co.	9-23-20	3,012	suspended
Knudsen & Schmidt, No. 1 Reef Ridge, Kings Co.	36-23-17	6,873	suspended
Magee & Stone, No. 2 Alpaugh, Kings Co.	33-24-22	3,149	test W.S.O.
Dil-Harp Oil Co., No. 1 Delano, Tulare Co.	25-24-26	1,210	suspended
Cardinal Oil Co., No. 1 Los Banos, Merced Co.	36-10- 9	rig	rigged up
Merced O. & G., No. 1 Chowchilla, Merced Co.	2- 9-16	rig	suspended
Na-Pa Oil Co., No. 1 Griffith, Napa Co.	7- 8- 3	3,742	br. sh. drilling
Oakdale Oil Co., No. 1 Oakdale, Stanislaus Co.	5- 2-10	4,815	hd. sh. drilling
Pacific Northern Oil Co., No. 1 Guinda, Yolo Co.	33-12- 3	4,216	gr. sd. drilling
Buttes Oilfields Co., No. 1 Marysville, Sutter Co.	36-16- 1	2,731	gas—shut in
Buttes Oilfields Co., No. 2 Marysville, Sutter Co.	34-16- 1	3,200	showing gas
Tehama Pet. Co., well No. 1, Glenn Co.	4-22- 5	4,814	gr. sh. drilling
Orland Synd., No. 1 Orland, Tehama Co.	31-23- 3	3,748	suspended
Marker Drlg. Co., No. 1 Orland, Tehama Co.	21-25- 3	3,030	suspended

Several Tests Resume Drilling in Washington and Oregon; Rocky Mountain Fields Are Quiet

By TOLBERT R. INGRAM
Staff Correspondent, Rocky Mountain Area

DENVER, Colo., July 17.—The Western Drilling Co.'s No. 2-A Green, in Eddy County, New Mexico, was only a small gas well and will be deepened for oil. Only one well is drilling in the Hobbs Pool. No change in field potential or allowables was reported for the first half of July. The Texas Co. is experimenting on a well in Eddy County with acid treatment.

In Colorado, the Rocky Mountain Gas Co. is believed to have opened a shallow oil pool on the Craig Dome in Moffat County. There were no completions or new operations reported.

In Wyoming, a 15-bbl. well was completed in the Osage Field and another of the same size in the LaBarge Field. The Huber Corp. has a 7,500,000-foot gasser in a well drilled deeper at Lance Creek. Drilling is to be resumed in the Sage Creek district, east of Lance Creek. A test for light oil is being started on the Segment Basin Dome northwest of Casper. Two wells in the Baxter Basin Field are being completed as gassers.

In Montana, two new locations were reported in the Cut Bank area. The Santa Rita test near the Canadian border swabbed 65 bbls. in 18 hours, opening a new pool.

Oregon and Washington report an increase in wildcatting with several tests resuming.

NEW MEXICO

Lea County

Pipe line runs from the Hobbs Pool in June aggregated 933,675 bbls., bringing the total since proration went into effect up to 33,841,338 bbls. No changes in potentials or allowable outlet for the first half of July were made.

The only active operation in the Hobbs Pool is the Shell Petroleum Corp.'s No. 4-B McKinley, SW NE SW Section 20-18-38, which is drilling at 3,627 feet in anhydrite.

In the Lea Pool, the Texas Co.'s No. 3-A Lynch, C NW NE Section 34-20-34, is waiting after cementing the 6⅝-inch at 3,575 feet in lime. It topped the lime at 3,562 feet. Cranfill & Reynolds' No. 4 State, C Lot 10, Section 2-21-33, is drilling at 1,200 feet in the red beds. It had water at 1,012-20 feet.

In the Jal area, the Carter and Continental Oil Co.'s No. 1 State, C NE NE Section 28-22-35, is drilling second water well at 825 feet. E. B. Guess' No. 1 Conditt, C SW SW Section 12-25-36, recemented the 10-inch at 520 feet.

Eddy County

The Western Drilling Co.'s No. 2-A Green, C SW NE Section 29-17-29, Jackson area, was only a small gas well at 2,330 feet, total depth, gauging 101,000 feet. It will be drilled deeper for oil later. Part of the equipment has been moved to the Grayburg Oil Co.'s No. 4 Burch, SE cor. NW Section 19-17-30, to spud. C. H. Lockhart and others' No. 2 Root, C SW SW Section 7-17-30, is drilling at 1,800 feet in anhydrite. Ralph Spearow's No. 1 McClellan, SW NW NE Section 22-22-23, Indian Creek, is drilling at 2,925 feet in lime, and No. 1 McIntyre, NW NW Section 27-23-25, is ready to spud.

Judge Colin Neblett, in the Federal District Court at Santa Fe, dismissed two receivers for the Albuquerque Natural Gas Co., appointed by Judge M. A. Otero, Jr., in the State District Court, and began hearings on the merits of the case as to whether new receivers will be appointed, or the case dismissed. Action was brought in the local court by Lottis F. Akins, a stockholder, and the court appointed J. D. Atwood, of Roswell, and L. G. May of Santa Fe, receivers. The case was then transferred to the Federal Court where Judge Neblett held that the first appointments were improvidently hurried. The State of New Mexico and the Frick-Reid Supply Corp. were intervenors in the case, the first on account of alleged delinquent taxes amounting to $50,000 and the other for supplies, pipe, etc., for which it alleged it has not been paid.

The Texas Co. is undertaking further experiments with the treatment of wells in lime formation to increase production and is treating its No. 3 State, NE Section 8-18-28, in the Artesia Field, an old well, with 75 gallons of muriatic acid to 525 gallons of water under oil pressure.

COLORADO

Moffat County

The Rocky Mountain Gas Co.'s No. 1 Eberle, SE SW SE Section 9-6n-91, Craig Dome, which encountered a good show of oil at around 1,300 feet while drilling to a gas sand at 2,800 feet, is attempting to shut off a flow of 25,000 bbls. of water from a sand above the oil to make a test. If the water can be controlled, the well probably will stop at its present depth and another drilled for an additional gas reserve for the town of Craig. The 10¾-inch was cemented at 1,290 feet. The total depth of the hole is 1,305 feet. The oil, which is light green in color and rich in lubricants, was found about 100 feet below the water. The well appeared to be making 50 to 75 bbls. of oil before an attempt was made to shut off the water and this showing was considered of sufficient importance to make a test of the horizon, if possible. This is the second well drilled on the structure. No. 1 Bogenschultz, 1,500 feet to the east, was a gas well at 2,800 feet. It had around 25,000 bbls. of water at the same horizon as in No. 1 Eberle, but only a show of oil and no test was made. Cement plug in No. 1 Eberle will be drilled out today. Drilling is in the top of the Mesa Verde formation. An unconfirmed report since the above was written is to the effect that the water was shut off and that the well has come in as an oil producer.

The Mountain Fuel Supply Co.'s No. 2 Florence Wilson, C NE NE Section 22-12n-100, the Hiawatha deep test, is drilling and coring at 3,950 feet. It is now several hundred feet deeper than any other well on the structure and is expected to go to 7,000 feet, or more. Same company's No. 1 Wheeler, SE NW NW Section 30-12-100, on the Bartram, or West Hiawatha Dome, set the 13½-inch at 115 feet and is drilling ahead. The same company's No. 1 Hatch, C NW SW Section 9-11-101, Sugarloaf district, is drilling at 2,000 feet. It had some showings of oil and gas in the upper horizons, but nothing worth while in the last several hundred feet. The opinion is held that it is too close to a major fault which runs across the structure at this point to be a producer.

The Texas Co.'s No. 1 Iles Investment Co., SE NW Section 23-4n-92, Iles Dome, is grading site for rig and moving in. Its objective is the Sundance, the principal producing horizon in the field.

Rio Blanco County

The California Co.'s No. 1 California-Raven, C NW SE Section 30-2n-102, Rangely Dome, has not yet released anything as the result of the last shot with 1,000 quarts. The cleaning out is proceeding slowly. It will run tubing close to bottom at a total depth of 6,315 feet.

Huerfano County

S. W. Pressey's No. 1 Ojo, SW NE Section 10-29-69, Oak View district, is drilling at 205 feet. The 10-inch was cemented at 68 feet and a show of gas was encountered at 85 feet.

Park County

The South Park Oil Co.'s No. 1 Milligan, NE cor. SE Section 13-8s-76, Jefferson district, is bottomed at 3,042 feet and fishing for pipe. The South Park Oil & Gas Co.'s No. 1 Esche, SE cor. NW Section 5-9s-76, Como district, is fishing for pipe at 2,465 feet.

Larimer County

C. Leonard Smith's No. 2 Union Pacific, SW cor. Section 31-12-69, Sand Creek, is drilling at 635 feet.

Fremont County

The Cherry Creek Placer Co.'s No. 1 Lucas, SW cor. NE Section 32-18-69, Florence district, is shut down at 2,080 feet.

LaPlata County

Phipps and others' No. 1 Government, SW NW Section 9-33-13w, Dry Mesa, is underreaming the 8¼-inch to bottom at 870 feet.

Las Animas County

The Continental Oil Co.'s No. 1 Maxwell grant, NE NW NE Section 29-34-68, is drilling at 950 feet.

Prowers County

The Shastatex Oil & Gas Co.'s No. 1 Lotus Oil, NW NE NE Section 15-23-46, Lamar district, is fishing for tools at 1,480 feet.

WYOMING

Weston County

Increased tourist travel through northeastern Wyoming is the cause of a better demand for refinery products and as a result crude from the Osage Field is moving more freely. Small refiners in the district are paying $1 per barrel at the well for crude.

John Coffey, Jr., has announced the purchase of an interest in D. O. Gray's refinery and plans to move the plant to Crawford, Neb., and continue to operate on Osage crude.

One completion was reported in the Osage Field in the Duluth-Wyoming Oil Co.'s No. 3, SE cor. SW Section 12-46-64, which is estimated at 15 bbls. on the pump. It found the sand at 1,422-34 feet, which was shot with 40 quarts. Oil rose 500 feet in the hole overnight.

Albert Jones' No. 4, C SW NE Section 21-46-63, is shut down below 200 feet. The Paymac Oil Corp.'s No. 1 Toyne, SE NW NE Section 3-46-64, is waiting for casing at 1,650 feet, and the Rigga Oil Co.'s No. 3, SE NE Section 16-46-64, is drilling below 400 feet. The Wyoming Oil & Gas Co.'s No. 19, SE NW SE Section 19-46-63, is drilling at 500 feet, and the Yellowstone Oil Co.'s No. 4 Butcher, NW Section 23-46-64, is shut down after running the 8¼-inch at 600 feet.

Niobrara County

The J. M. Huber Corp.'s No. 1 Western States, SE cor. SW Section 27-36-65, Lance Creek, an old well deepened from the Dakota to the Lakota, was completed at 3,540 feet for 7,500,000 feet of gas and 20 bbls. of oil per day. It topped the Lakota at 3,530 feet. This company recently acquired the E half SW Section 27, upon which there are two old wells, and deepened the first of these for an additional supply of gas for its carbon black plant.

A California syndicate headed by Nathan W. Hale has acquired the acreage and uncompleted well of the Bowser-Satterfield Syndicate on the Sage Creek Dome, 10 miles east of Lance Creek and will complete No. 1, NE cor. NW Section 7-35-62, which was drilled to 1,527 feet in 1929 and shut down. At this depth it was believed to be on top of an unidentified sand. The Bowser-Satterfield Syndicate was composed of Parkersburg, W. Va., people. At 915 feet it showed for 1,500,000 feet of gas with water, which was shut off with the 12½-inch at 950 feet.

Natrona County

A new wildcat is being started on the Segment Basin structure, northwest of Casper and just to the east of the North Casper Creek structure, by the Lakota Oil & Gas Co. in its No. 1, C NW Section 4-36-81. A rig is being moved from one of the Lakota company's wells on North Casper Creek. The location was made by Charles T. Lupton, of Denver, who reported favorably on the structure. An exposure of Shannon sandstone to the north, east and southeast indicates a large gathering area in those directions while sharp dips on the east side of the North Casper Creek Dome point to a good closure on that side. It will be a test for light oil and the Wall Creek is expected at around 1,600 feet.

The Golden West Oil Co. (W. C. Giles and others) drilled to 1,242 feet on Section 36-36-81, and shut down in 1930. This company is reported to have been reorganized and preparing to complete the test.

The Mutual Oil Syndicate's No. 2 Boyer, NE SW NE Section 23-35-79, Midway Dome, is coring at 2,432 feet.

The Triangle Oil Co.'s No. 1 Ames, SE cor. Section 29-36-85, North Boone Dome, is shut down at 812 feet and may be abandoned on account of casing trouble and rig skidded to a new location.

Carbon County

E. W. Hughes, of the Hughes Royalty Co., has again taken charge of that company's No. 1, NE NE Section 25-26-88, Mahoney Dome, which was turned over to the Lost Soldier Producing Co. some time ago to complete. It is bottomed at 4,030 feet and equipment is being moved in for the resumption of operations. A string of tools is in the hole. The well had gas in the upper Sundance and produced some oil for a while. New interests then took it over in an effort to carry it down to the lower Sundance, but ran into numerous difficulties.

Earl W. Reeder, Inc.'s No. 1 Union Pacific, C SW SW Section 19-20-83, Overland Dome, is drilling at 1,400 feet after lowering the 12½-inch to bottom for a formation shutoff. The Ohio Oil Co.'s No. 1 A. J. Hazlett, NE NW Section 34-23-79, Allen Lake, is bottomed at 1,710 feet and recemented the 10¾-inch at 1,689 feet. It was allowed to blow for

three hours before running casing and developed a flow of 2,000,000 feet of gas per day from a sand in the Morrison formation. The Mutual Oil Syndicate's No. 9 Dutton Creek, NW NE Section 12-18-78, Dutton Creek, cemented the 11⅝-inch at 110 feet.

Fremont County

Texas Co.'s No. 2 State-Ridgeway, SE SW SW Section 36-34-95, Alkali Butte, is bottomed at 4,660 feet and being completed as a gas well.

Sweetwater County

The Mountain Fuel Supply Co.'s No. 2 Cappers, SW cor. NW Section 12-19-104, North Baxter Basin, topped the Muddy at 3,050 feet and showed for 4,000,000 to 5,000,000 feet of gas per day. The 8⅝-inch was cemented at 3,047 feet and it is ready to drill in. Same company's No. 2 Union Pacific, SE cor. NW Section 21-16-104, South Baxter Basin, showed for about 4,000,000 feet of gas in the top of the Frontier and stopped to cement the 8⅝-inch at 2,359 feet. It is waiting on cement to harden.

Lincoln County

H. C. Harris and others' No. 1, C NW SE Section 14-21-117, Fossil district, is drilling at 1,597 feet.

Sublet County

The Stanolind Oil & Gas Co. resumed running oil July 12 through its pipe line from the LaBarge Field to its loading racks at Opal and will run an average of 3,000 bbls. daily for the next few weeks.

One completion in the LaBarge Field was reported in the Calmonica Petroleum Corp.'s No. 2 Elkhorn, SW SE Section 27-27-113. It topped the sand at 2,220 feet, was drilled to 2,231 feet and is estimated at 15 bbls. on the pump. The Wolff Petroleum Co.'s No. 3-L, SW Section 5-27-113, is drilling at 815 feet.

Washakie County

Bales Oil Trust's No. 2, SE SW SW Section 30-48-90, Hidden Dome, is drilling at 1,350 feet. L. S. Keyes and others' No. 1 Bales, NE SW NW Section 31-48-90, is rigged and ready to spud, and D. L. McDonald and others' No. 1 Wheeler, SW cor. SE Section 30-48-90, is drilling at 98 feet.

Hot Springs County

The Empire State Oil Co.'s No. 4 Republic, NE NW Section 14-44-98, Hamilton Dome, is drilling at 1,200 feet.

MONTANA

Glacier County

Two locations reported in the Cut Bank Field are as follows: The Montana Power Gas Co.'s No. 1 Vermont Loan & Trust Co., on the section line between Sections 21 and 28-36-5w, being 1,320 feet from the east section line. It is in the gas area. R. C. Tarrant's No. 3 Haglund, Jr., C SE NE Section 13-34-6w, is moving in materials.

The Santa Rita Oil & Gas Co. and P. T. Sweeney's No. 1 Jacobson, C NW NW Section 23-37-5w, 13 miles north of the nearest oil well in the Cut Bank Field and near the Canadian border, which opened a new pool two weeks ago, swabbed 65 bbls. in 18 hours after plugging back from 2,633 feet to 2,628 feet to shut off bottom water.

The Montana Power Gas Co.'s No. 1 Brown, C NE Section 31-35-5w, is drilling at 395 feet after cementing surface pipe. Texas Co.'s No. 1 Fisk, C NW NE Section 14-35-6w, is building rig.

The Alberta-Pacific Consolidated Oil Co.'s No. 2 Matson, SE NE SW Section 14-34-6w, is shut down at 2,883 feet, and its No. 2 Kiesel, SE cor. NW Section 11-34-6w, has recovered one string of tools and is fishing for the other at a total depth of 1,685 feet. The Dakota-Montana Oil Co.'s No. 1 Matson, SE NE NW Section 14-34-6w, topped the Colorado at 520 feet and cemented the 10-inch at 609 feet with 75 sacks. A. B. Cobb's No. 1 Alburger, SW cor. SE Section 35-34-6w, is rigged and ready to spud, and W. M. Fulton and others' No. 1 Haggerty, NE cor. Section 16-34-6w, is drilling on iron at 2,925 feet. The Hannah-Porter Co.'s No. 1 Britton, NW NE NE Section 23-34-6w, is cleaning out at 2,895 feet.

The Santa Rita Oil Co.'s No. 2 Blackfeet, SE NW Section 15-35-6w, is swabbing 82 bbls. average after a shot with 40 quarts at 2,897-2,914 feet and is listed as a completion. Same company's No. 1 Olson, NE cor. Section 26-34-6w, is shut down at 2,845 feet for orders.

R. C. Tarrant's No. 2 Haglund, Jr., C NW SE Section 13-34-6w, is drilling at 2,270 feet, and his No. 1 Hope, C SW SW Section 18-34-5w, topped the Kootenai at 2,140 feet and is drilling at 2,520 feet. Tarrant's No. 1 Williams, NW cor. NE Section 11-34-6w, is bottomed at 1,620 feet and trying to cement off leak through the 12½-inch at 185 feet.

The Par Oil Co.'s No. 1 Haines, SE SE Section 2-34-6w, is still swedging pipe at 2,810 feet, total depth 2,845 feet. J. W. Johnson's No. 1 Ewing, C NE NE Section 3-34-6w, is moving in materials.

Carbon County

The Ohio Oil Co.'s No. 9 Souders, C NE SW Section 2-7s-21, Dry Creek, which came in for 1,000 bbls. in the Lakota sand at 5,471-5,502 feet, has been tubed and pinched down to 300 bbls. per day under back pressure. The Montana Reserve Oil Co.'s No. 1 Croft, SE cor. SW Section 34-6s-21, is reported shut down at 572 feet on government orders. Recently a dispute over the permit upon which the well is located was reported.

Big Horn County

The Enterprise Oil Co. and others' No. 2 Lynde, SW cor. SE Section 21-6s-35, Lodge Grass Creek, is reported shut down at 3,450 feet.

Musselshell County

The Hawkeye Oil Co.'s No. 1, NW NE NE Section 20-11-23, Willow Creek, is drilling at 700 feet.

OREGON

The Coast Oil Co.'s No. 1 Coquille, southwest of the town of that name in Coos County, is reported to be showing for 3 bbls. per day at 1,450 feet. The hole is in bad shape, however, and probably will be abandoned and rig skidded. The oil is brown in color and has an asphalt base. The Stiewer Dome Development Co.'s No. 1, SW NW Section 14-9s-3w, Marion County, is drilling at 500 feet.

WASHINGTON

The Northwestern Natural Gas Corp.'s No. 6 Walla Walla, C NE NE Section 9-11-26, Rattlesnake Hills shallow gas Field, Benton County, is reported drilling at 1,500 feet with rotary equipment. This is one of the old shallow wells being deepened for a test of lower formations. The Ives Oil & Gas Co.'s No. 2, Section 21-40-4, Nooksack district, Whatcom County, is reported to have resumed at 1,000 feet. Morcella L. Vincent and others' No. 1 Rosalie, Section 9-28-13w, Forks district, Callam County, is reported to have financed further operations and preparing to resume. Total depth is 2,088 feet where it was reported to have had a show of gas. New interests will run pipe and set on bottom.

New Oil Producing Area Opened in Alberta Just North of the Cut Bank, Montana, Field

By VICTOR LAURISTON
Staff Correspondent, Canadian Fields

CHATHAM, Ontario, July 15.—In the Alberta border area southeast of Lethbridge, Nordon-Roney's No. 2 Twin River, LSD 11, Section 2-2-20w4, has apparently secured a commercial production of crude oil in the top of the Madison limestone. At last reports the well was bottomed at 3,940 feet, after drilling 10 feet into the oil sand and was waiting for tubing. Unofficial estimates indicate a potential production of 50 bbls. a day or better of high grade crude, with a gas flow estimated between 5,000,000 and 15,000,000 feet.

The strike apparently opens an important new producing area in Alberta just north of the Montana boundary, and some miles north of the new extension of the Cut Bank Field in northern Montana. Several previous tests drilled in the Lethbridge area encountered encouraging oil shows in the top of the Madison lime, but the Nordon-Roney test has the best showings so far encountered.

No. 2 Twin River was a joint test by Nordon Corp. and C. A. Roney of Los Angeles. The structure was one of a series mapped by Arthur I. Davis, S. Myron Zandmer and Frank R. Henry, petroleum engineers, of Los Angeles. Parco Oil Co. in 1931 drilled a test on this structure on Nordon acreage. In LSD 16, Section 34-1-20w4. This test proved an edge well. It got a fairly good show of crude, testing around 31 gravity, just below the Ellis-Madison contact but on deepening drilled into water. It was plugged back and shot. In shooting the shoe of the casing was damaged, and the well was not finished. It still flows by heads, however, making a couple of barrels a day. Nordon-Roney's test was located after careful geophysical tests to determine the top of the subsurface structure. The seismograph indicated the location to be higher on structure than the first well, and this was confirmed by the drilling log.

Nordon-Roney's No. 2 Twin River got the Madison lime at 3,900 feet. Considerable gas was encountered at the Ellis-Madison contact. After drilling 7 feet into the Madison the heaviest gas flow came in, unofficially estimated from 4,000,000 to 10,000,000 feet a day. Drilling below 3,907 feet, several small oil shows were met. At 3,930 feet the drill got the top of the main oil sand, drilling continuing into the sand for 10 feet. The well closed in developed 1,130 pounds pressure, and when opened it sprayed oil over the top of the 129-foot derrick. The gas does not appear to be a wet gas, though this has not been definitely determined. The oil is apparently a similar grade to that encountered in No. 1 Twin River, around 31 to 33 gravity.

Turner Valley Deliveries

Turner Valley refinery deliveries for June totaled 67,072 bbls., the highest since March, 1932, and an increase of 2,471 bbls. over May. June deliveries include 15,980 bbls. of crude naphtha, 40,616 bbls. of discolored naphtha and 4,061 bbls. of light crude to Imperial Oil Refineries, Ltd., a total of 60,657 bbls. This compared with 58,930 bbls. in May. Deliveries to Bell Refining Co. increased from 4,199 to 5,209 bbls., while deliveries to Regal Oil & Refining Co. dropped from 1,472 to 1,206 bbls.

Crude Oil in Model

In North Turner Valley, Model Oils' No. 2, LSD 16, Section 22-20-3w5, is reported drilling below 6,022 feet with some crude oil production in the lime. The test got a wet gas flow, estimated 5,500,000 feet a day, at 5,924 feet, in a porous horizon approximately 400 feet in the lime. The gas had an estimated naphtha recovery of around 50 bbls. a day. Drilling was continued, and at 6,000 feet the drill struck a flow of light crude, testing 56 gravity, a little higher than the crude from Model Oils' No. 1, a half mile farther south. The test is deepening in the lime with an 8-inch hole, but production will probably be tested within the week. The well is thought to be commercial as it stands. It was originally started as Anaconda Oil Co.'s No. 1, and is being completed by Model Oils, Ltd.

Central Turner Valley

In the Central Turner Valley Field, New McDougall-Segur Oil Co.'s No. 6, LSD 11, Section 12-20-3w5, is reported drilling below 2,850 feet, after encountering a second showing of light crude oil at 2,795 feet. The first small show was met at 2,530 feet.

Spooner Oils, Ltd., will drill a test to be known as Spooner-Anaconda's No. 1 on a 60-acre tract subleased from Anaconda Oil Co., in LSD 1, Section 28-18-2w5, immediately south of Mar-Jon-Freehold's No. 1 producer and northwest of Hoffar-Lundy Syndicate's No. 1 drilling test.

Oil Royalties & Share Corp. is reported arranging for development of its 20-acre tract in LSD 2. Sunburst-Mid Royal's No. 1, LSD 14, same section, is reported rigged up. Sterling Royalties' No. 1, LSD 1, Section 33-18-2w5, is reported rigged ready to spud in.

Hunter Valley Show

In the forest reserve area west of Olds, Hunter Valley Oil Co.'s No. 1 McLaren, Township 31-10-w5, encountered a small show of nonsulphur gas in the lower Benton formation at 980 feet. Drilling is continuing at 1,090 feet in a blue formation with hard sandstone shells. The gas flow is reported increasing steadily as the test goes deeper.

Reserve Dome Test

On the Alberta side, Mayland Southern, headed by A. H. Mayland of Calgary, is reported arranging contract for a second test on the northern end of the Reserve Dome. The structure extends north from Montana into Alberta, and Mayland Southern's No. 1, LSD 13, Section 4-1-9w4, encountered several gas horizons, but was abandoned at 3,000 feet when it failed to develop commercial oil production.

Ontario Drilling

In the Dover Field, Kent County, Ontario, Raleigh Development Syndicate's No. 1 Stevens farm, Lot 2, front concession, is being shot in the Trenton limestone. The test was drilled to approximately 3,300 feet after getting the Trenton around 2,880 feet. Two small pays of gas were met in the Trenton between 2,885 and 3,150 feet, with a little oil below the gas. The gas flow was variously reported from 85,000 to 125,000 feet before the shot.

In the old Tilbury Field, Kent County, Salina Oil & Gas Co.'s No. 3 Hope is reported drilling below 600 feet, on a test of the Tilbury sand. In Raleigh Township, Olga Oil & Gas Co.'s No. 6 Larke farm, Concession 9, is reported rigging up.

In Haldimand County, Empire Syndicate has finished a gasser in Lot 1, Concession 2, Walpole Township, on a location about 1,500 feet north of the road between Concessions 1 and 2 and half way across the lot from east to west. Production is reported around 100,000 feet a day. Production is encountered around 1,000 feet.

Central Michigan Reports 5,000-Bbl. Initial Well; Wyandot County Is Active in Central West

By GEORGE A. WHITNEY
Staff Correspondent, Central West Fields

MOUNT PLEASANT, Mich., July 17. Two completions were reported from the Central Michigan Field during the week, although several are nearing completion. The best was Pure Oil Co.'s No. 1, on the Mina Naramore farm, SW Section 15, Porter Township, Midland land County, a direct west offset to the big well recently drilled in on the State-Porter farm, for an estimated initial production of 5,000 bbls. No. 1 Naramore at 28 feet in the Dundee was showing very light, with 700 feet of oil in the hole. The well was drilled deeper and flowed 75 bbls. in 30 minutes, estimates running as high as 1,380 bbls. in 24 hours. The State-Porter well, which had the largest initial production of any well drilled in Michigan, is reported producing 1,000 bbls. daily. No. 2 on the Nina Naramore farm, completed in June, a north offset to the big State-Porter well, was light when completed, although it was built up to around 400 bbls. by acid treatment. No. 3, in the southwest corner of the Naramore farm, is near completion, having about 3,000 feet of oil in the tubing, and indicating a fairly good producer. No. 4, 330 feet from the south line and 2,310 feet from the west line of the Naramore farm, is drilling below 2,500 feet.

Strange & Fortney's No. 1, 225 feet from the north line and 200 feet from the west line of the D. W. Campbell farm, NW NW SW Section 17, Porter Township, Midland County, a semiwildcat location on the west border of Section 17, was increased by deeper drilling and was estimated good for 600 bbls.

Strange Oil & Gas Co.'s No. 1, in the southeast corner of the Sam Walley farm, SE SE SE Section 16, Porter Township, Midland County, drilled late in June, showed an initial of 95 bbls., and by the use of acid, brought it to an initial of 550 bbls., but at last report is doing 250 bbls.

Important Test

One of the important tests under way in the Central Michigan Field, is Michigan Gas & Oil Co.'s test on the W. Busche farm, center SW SW Section 10, Wise Township, Isabella County, which is drilling below 3,350 feet and in the Traverse formation with hope of getting the Dundee formation during the next few days. The Busche test is regarded as a potential opener of a new field in Isabella County as the formations have been running high on structure. It is about 7 miles northeast of the Vernon Field.

Stork Oil Co. is drilling below 1,500 feet on the Otway farm, Section 26, Porter Township, Midland County. Same company's test, 990 feet from the north and west lines of the Jess B. Richmond farm, SE NW SW Section 22, Porter Township, Midland County, at 17 feet in the Dundee filled the hole with oil, but no estimate has been made at this time, as the well will be drilled deeper.

Stewart and Gordon's No. 3, 990 feet from the south line and 330 feet from the east line of the J. B. Richmond farm, NE SE NW Section 22, Porter Township, drilling around 1,500 feet. Gordon Oil Co. is drilling around 1,300 feet in No. 3, on the Muscott and others farm, SE NE NE Section 17, Greendale Township, Midland County. Theodore Oil Co. is drilling below 1,300 feet in No. 1, 990 feet from the north line and 415 feet from the west line of the Dr. J. W. Campbell farm, SW NW NE Section 17, Porter Township.

Gordon Oil Co. is drilling below 800 feet in the northwest corner of the H. Carter farm, NE NW NE Section 21, Porter Township, Midland County.

Producers Pipe Line Co. has consolidated its Mount Pleasant offices with the office of Old Dutch Oil & Gas Co. in Muskegon. Operations of the pipe line company will be handled direct by company representatives in the field as usual.

The test of J. W. Leonard, 330 feet from the north line, 990 feet from east line of the George L. Burrows and others farm, NW NE SE Section 3, Chippewa Township, Isabella County, was drilled into the Dundee Wednesday. That it will make a commercial well was indicated when considerable oil showed in the casing with several feet yet to drill. The Burrows is the only test being drilled in Chippewa Township, at present.

Drilling Permits

Permits were issued to the Lawson Oil & Gas Corp. for No. 2, 330 feet from the north and east lines of the Arlinda and Arvilla Thayer farm, NE NE SW Section 23, Vernon Township, Isabella County; to M. D. and R. A. Wells (Wells Brothers) for No. 1, 330 feet from south and west lines of the George H. McCann farm, SW SW SE Section 25, Porter Township, Midland County; to Strange Oil & Gas Co. for No. 4, 330 feet from the south line and 990 feet from the north line of the Sam Walley farm, SW SE SE Section 16, Porter Township; to the same company, 990 feet from the south line and 330 feet from the west line of the Sam Walley farm, NW SW SE Section 16, Porter Township, same county; to W. Hunter Atha for No. 1, 330 feet from the north and east lines of the Harry Bond farm, NE NE SE Section 20, Greendale Township, Midland County; to the McClanahan Oil Co. for No. 1, 990 feet from the south line and

(Continued on Next Page)

Eastern Field Is Finding It Difficult to Return Production to November 1931 Normal

By STAFF CORRESPONDENT

PITTSBURGH, Pa., July 17.—So far this month the eastern fields are finding it difficult to return production to the normal 100 per cent existing in November, 1931. After 18 months of curtailment and a longer period of depressed price structure, refinery demand is well ahead of production, and there are indications of a still further increased demand. Without increased drilling in oil areas, and the larger companies are still without drilling programs, production appears to be limited to a 90 per cent return to normal.

Four producers with an initial production of 126 bbls. were completed in the eastern fields during the week. Two were interesting tests. There were also four gas wells, two fair and one dry hole. Total completions numbered nine.

In Tyler County, West Virginia, a fair test was completed. At the mouth of Little Sancho Creek in Meade district, Ohio Oil Co. completed a test on the Sherman Smith farm in the Maxon sand at 1,528 feet, showing for 15 to 20 bbls. a day natural.

The nearest developed territory to this well is over a mile distant and while there are a few scattered tests nearer than that, none are Maxon sand producers but were either dry holes or light completions in the Injun sand. There is a large acreage untested. It is the probable forerunner of additional activity in this county.

Another fair test, and the largest for the week, was in Southeast Ohio. In the extreme southwest corner of Newcastle Township, Coshocton County, Pure Oil Co. drilled a test on the Ray Hays farm in the Clinton sand to a depth of 3,280 feet. It produced 105 bbls. the first day after shot.

In Vinton County, near New Plymouth, Kelch Brothers completed No. 3 on the L. and M. Backus farm in Section 35, Brown Township. It was drilled in the Grit, a depth of 929 feet, and is a gas well showing for about 600,000 feet daily.

WEST VIRGINIA

Three producers and three gas wells were completed in West Virginia. There was also one dry hole. In Roane County Henderson Oil Co. drilled its test on the T. H. Bee, Jr., farm, on Buffalo Creek in Curtis district, deeper in the Salt sand. It is now producing 10 bbls. a day. This was a former gas well.

In Pleasants County, Julius C. Goebel completed a test on the W. H. Moore farm in Jefferson district. It was completed in the Cow Run sand showing for 10 bbls. a day.

In Monongalia County Martin Oil Co. drilled its second test on the N. P. Fetty farm in Clay district deeper and completed it in the Big Injun sand. It is a small pumper and will make about 1 bbl. a day.

On the right hand fork of MacFarlan Creek in Murphy district, Ritchie County, C. W. Cunningham has acquired the Southern Oil Co. lease on the L. A. Hoover farm. The new owner has reconditioned No. 4 on this farm and it is now making 1½ bbls. a day.

Gas Wells

There were two fair tests in Cabell County. Huffman Oil & Gas Co. completed a test on the William Prindle lease in Guyandotte district in the shale at a depth of 2,730 feet. It is good for about 800,000 feet a day. In the same district, C. C. Wolfe and others completed a test on the T. H. Tanner farm also in the shale at a depth of 3,070 feet. It is showing for over 600,000 feet a day.

In Calhoun County, F. F. McIntosh is completing his deep test on the Charles and John Davis farm in Lee district, on the waters of Mushroom Creek of West Fork. It was drilled through the shale and to a total depth of 5,398 feet. No. oil or gas was found in the shale. It was shot in the Injun sand at a depth of 1,900 feet with a resultant light gas well. Tubing is now being run to that formation. This well is about 3,000 feet west of his fair test on the S. A. Hays farm.

In Wirt County, Dailey and Benedick drilled a test on the James L. Adams farm in Clay district. It was drilled through the Cow Run sand, a depth of 650 feet, and is a dry hole.

Drilling in West Virginia

In Monongalia County, Chartiers Oil Co. is building a rig on the Thomas Williams heirs farm on Days Run in Clay district. In Marion County, Victor Oil & Gas Co. is down 1,020 feet on the Charles H. Freeland farm in Mannington district.

In Boone County, Pure Oil Co. is spudding in No. 1 on the A. M. Prichard lease in Sherman district. Its test on the Cheylan Coal Land Co. tract in Cabin Creek district, Kanawha County, is down 2,248 feet. In this district, G. L. Cabot is drilling at 945 feet in No. 41 on the A. D. Huntington lease. In Clay County, just north of the junction of Fayette and Nicholas Counties, this operator is down 1,600 feet on the Bell Creek Land Co. tract in Pleasant district. In Sherman district, Boone County, Pure Oil Co. is rigging up for No. 60 on the Federal Coal Co. property.

In Cabell County two new tests are starting in McComas district. West Virginia Gas Corp. is building a rig on the H. L. Day farm. In this district Craan Gas Co. has part of the material on the ground on the George H. Midkiff farm. In Guyandotte district, depth of the various wells drilling follows: Adkins and Marsh on the C. M. Watts farm is at 2,305 feet; Swanson and Martin, on the J. T. Tubert farm, at 1,500 feet; Copeland Gas Co., on the E. N. Waugh farm, at 1,976 feet; G. W. Shipes and others, on the Callie Massey farm, at 1,150 feet; Petry and Borders, on the Shelby Johnson farm, at 1,390 feet; Graham Gas Co., on the S. P. Hager farm, at 1,475 feet; Ross Cambell, on the Julliette Enslow farm, at 876 feet. In this district, Fairfax Gas Co. is partly rigged up on the United Fuel Gas Co.'s lot.

In Lincoln County, Pridemore and Adkins are down 500 feet on the Henry Chandler heirs farm in Jefferson district. In the same district, Turtle Lick Gas Co. is drilling at 900 feet on the George Thompson farm.

In Wayne County, Cisco Drilling Co. is nearing the sand on the Sampson B. Bailey farm in Ceredo district, the depth being 2,745 feet. In Union district the West Virginia Gas Corp. is down 1,500 feet on the Henry Adkins farm.

In Logan County the West Virginia Gas Corp. is rigging up to drill its No. 37 on the Guyan Merch Co. tract in Logan district deeper from 1,591 feet. In Curry district, Putnam County, United

Fuel Gas Co. has shot its No. 4,378 on the C. H. Cottle farm in the Berea sand at a depth of 3,720 feet.

In Lost Run Pool in Clay district, Ritchie County, Frank Finley and others have made fair progress in their second test on the Bohem and Neeley lease and are drilling at 1,350 feet. On the L. E. Robinson farm, Hinton Farm Oil Co. is now ready to start spudding its No. 3. This pool is still producing a fair amount of crude. In Murphy district, King Knob Oil Co. reached 135 feet on the H. C. Allen farm and has a fishing job at that depth. Deem and Overton are rigging up on the R. A. Overton farm, same district.

In Calhoun County, Creed Barker and others are reaching the Injun sand on the J. Lawson Kelley farm in Sherman district, the depth now being 1,965 feet. They have the material on the ground on the I. B. Fowler farm. Poling and Mollahan are fishing at 1,835 feet for the tools on the F. M. White farm, and have a location on the Almette Wilson farm. In Sheridan district a new test starting is that of Cain and Rothwell on the Leroy Jones farm. They have finished spudding in. In Washington district, Grant Fowler is drilling at 1,700 feet on the O. W. Grove farm and is building a rig on the Orval Postlethwait farm.

SOUTHWEST PENNSYLVANIA

No completions were recorded in Southwest Pennsylvania during the week. Activity is increasing. In Amwell Township, Washington County, No. 3 of Raymond Orrill on the Martha Hazlett farm is still flowing natural and has settled down to about 110 bbls. a day. Carnegie Natural Gas Co. will complete its test on the Mrs. Francis Menzer farm in this township within two days. Union Gasoline & Oil Corp. has made a location on the VanKirk farm and is hauling in materials.

In North Franklin Township, Washington County, E. H. and J. B. Tague are following along their Dunkard sand streak and have started drilling No. 4 on the Adaline D. McKennan estate. Their No. 3 is making about 15 bbls. a day.

In Richhill Township, Greene County, Earhart & Co. are shut down at 620 feet for water. In Jefferson district, Fayette County, Carnegie Natural Gas Co. has started drilling on the H. H. Wells farm.

Central West Fields

(Continued from Preceding Page)

330 feet from the east line of the A. F. and Cecile M. Beru farm, NE SE NE Section 20, Porter Township, Midland County; to George W. Giffert for No. 1, 990 feet from the north line and 330 feet from the west line of the Paul D. Wampler farm, N half W half SW Section 9, Greendale Township, Midland County; to Edward Stewart, for No. 4, 990 feet from the south and east lines of the J. B. Richmond farm, NW SE NE Section 22, Porter Township, Midland County; to Stoddard & Darke, for No. 1, 330 feet from the south line and 990 feet from the east line of the Elmer E. Brown farm, SE SW NE Section 16, Denver Township, Isabella County; to John Blake, trustee, for No. 1, 330 feet from the south and west lines of the Eugene D. Sitkins farm, SW SW NE Section 13, Clyde Township, St. Clair County; to Edward Stewart for No. 2, 330 feet from the north and east lines of the H. Carter farm, NE NW NE Section 21, Porter Township, Midland County; to Edward Stewart for No. 3, 990 feet from the north and west lines of the H. Carter farm, SE NW NE Section 21, same township; to Alvin Weber for No. 1, 550 feet from the north line and 330 feet from the east line of the Stella Wilcox farm, NE NE Section 34, West Branch Township, Ogeman County; to the Wellman Oil Co. for No. 1, 330 feet from the south and west lines of the Anton Wezensky farm, SW NE NW Section 30, Denver Township, Isabella County; to the Talbot Oil Co. for No. 5-B, 990 feet from the south line and 330 feet from the east line of the State of Michigan land, NE SE SE Section 11, Greendale Township, Midland County.

Changes in names of companies for permit numbers were announced as follows: Permit No. 1,522, from Lang & McClure to Stork Oil Co.; permit No. 1,523, from Lang & McClure to Stork Oil Co.; permit Nos. 1,209, 1,304 and 1,399, from Wellman Oil Co. to Karl R. Adams, trustee.

Drilling Depths

McClanahan Oil Co.'s test, 330 feet from the north line and 1,320 feet from the east line of the G. R. Hathaway farm, S half S half NE Section 17, Porter Township, has a fishing job at 3,389 feet. Same company's test in the southwest corner of the S. M. Densmore farm, SW SW NW, Section 4, is fishing at 1,190 feet.

A. P. Scheid's test in the northwest corner of the Cecil and Mary I. Acker farm, NW NW NW Section 24, Porter Township, Midland County, is down below 850 feet. George Hanners has skidded the rig and is spudding a new hole on the G. R. Hathaway farm, SE SE NE Section 17, same township. Wells Brothers are driving pipe in their test on the George H. McCann farm, SW SW SE Section 25, also in Porter Township. William J. Wilson, trustee, has been held up with a fishing job at 1,600 feet in No. 1 on the William M. and Sophia Carter farm, NE SW Section 18, same township. J. Mark Harvey, trustee, is drilling at 1,750 feet on the Farmers State Bank land, SE SW SE Section 8, same township.

Greendale-Lee Development Co.'s test on the Hitsman farm, in the NW NW SW Section 13, Lee Township, Midland County, is shut down below 1,405 feet. W. Hunter Atha's No. 1 on the Talker farm, Section 7, same township, is drilling below 1,350 feet. Thompson & Fortney's No. 1 on the Gilbert A. Curris farm, SW SW SW Section 16, Mount Haley Township, Midland County, is drilling below 2,650 feet.

CENTRAL WEST

The old Lima Field, Wyandot County, Ohio, continues to be the most active at this time and results have been surprising. In Crane Township, Keiner and others' No. 2, on the Louis Brandt heirs farm, Section 34, is credited with an initial of 150 bbls., and No. 3, same farm, is also showing for a fair producer. Upper Sandusky Oil & Gas Co.'s No. 2 on the N. and H. Saltzman farm, Section 28, same township, is reported good for 24 bbls. and 1,000,000 feet of gas initial from 1,300-28 feet.

Keiner and others are drilling close to the producing sand on the Gotleib Seiler farm, Section 34, Crane Township, close to the producing wells on the Brandt heirs farm. Ohio Fuel Gas Co. is drilling on the Ira Schoenberger farm, Section 20, same township. In Salem Township, same county, Vienn and others' test on the W. F. Reihl farm, Section 13, has a nice showing of gas, and some oil showing from 1,305-19 feet. Ferdell and others are drilling on the Mary E. Sampson farm, Section 20, Crane Township. Crane Township Oil & Gas Co. is getting close to the producing sand on the Delbert Smith farm, Section 33, same township. Robert W. Kirk and others are also nearing the Trenton lime formation on the B. C. Root farm, Section 29, Crane Township.

Dewey Oil & Gas Co. is drilling No. 2 on the Hattie H. Martin farm, Section 33, Clinton Township, Seneca County, at below 850 feet.

CENTRAL OHIO

The Central Ohio Field is the most active of any of the Central West fields, due to the hunt for natural gas as well as oil, although but three completions were reported. The best completion was Pure Oil Co.'s No. 1 on the Ray Hayes farm, Section 17, Perry Township, Coshocton County, with an initial of 100 bbls., at a depth of 3,238 feet. Wiser Oil Co. is drilling on the Patterson and Crawford farm, same section, and Preston Oil Co. is drilling No. 1-1,522 on the Cary D. Harris farm, same section.

In Stark County, three gas wells were brought in. Brendal Producing Co.'s No. 1 on the Minnie A. Sheets farm, Section 8, Plain Township, is an exceptionally good well from 4,508-40 feet. East Ohio Gas Co. drilled in a gas well in No. 1 on the Otto Franks and others farm, Section 20, same township, and Cunningham Natural Gas Co.'s No. 1 on the Joe Herman farm, Section 17, same township, is also a gas producer.

McClay Brothers struck a light gas showing at 3,939 feet and are drilling deeper on the Lewis V. Miller farm, Section 19, Freedom Township, Portage County. The upper gas was struck in the Newburg formation, and the test is now below 3,970 feet.

A number of tests are to be drilled in Olmstead and Strongsville Townships, Cuyahoga County, near Cleveland. Johnson and others are reported drilling below 2,100 feet in a test on the Gail King farm, Lot 39, Charleston Township, Portage County. Same parties are drilling on the William H. Kain farm, Lot 59, Newton Township, Trumbull County, below 2,800 feet.

Stark County has several wells that should be completed within a short period. This is the most active development county in the Ohio Field. Brendel Producing Co. is drilling below 4,300 feet on the David and Nora Fredericks farm, Section 10, Marlboro Township, same county. Same company is building a rig on the A. and L. Stephens farm, Section 9, Plain Township, same county, a rig on the Valentine L. Ney farm, Section 10, and is moving in tools on the James H. McDowell farm, Section 16, same township. Boettler and others are spudding in on the Peter Henry farm, Section 19, Plain Township, Stark County. Stoltz and others are completing a rig on Lynhurst addition, Section 17, same township, Hoover Development Co. is drilling below 2,750 feet in No. 2 on the Hoover company land, Section 18, same township, and same company is drilling below 800 feet on the Hoover company's land, Section 20, same township. White and others are drilling below 700 feet on the Jacob Isler farm, Section 25, Perry Township, same county, and same parties are rigging up on the Forest Hill Cemetery property, Section 20, Plain Township. Canton Drop Forge Co. is drilling below 4,215 feet on its own property, in Section 9. Canton Township, same county.

Drilling in Tuscarawas County

In Tuscarawas County, Fairfield Township, Frey and others are drilling below 3,550 feet on the H. B. Gobert farm, Section 7, and Lyons & Piefer are drilling below 3,275 feet in No. 5 on the J. H. Weaver farm, Section 5, same township. Hopewell Oil & Gas Co. is drilling below 3,400 feet on the G. E. Hursey farm, Lot 22, Washington Township, same county.

In Belmont County, Union Township, Robert Morgan and others are rigging up on the William L. Boyd farm, Section 15. Frank Stranges is rigging up on the T. A. and W. A. Walker farm, Section 20, same township, and King & Tanner are spudding No. 2 on the Charles McLaughlin farm, Section 36, Somerset Township, same county.

H. L. Muhlbeck and Son are drilling on the A. C. and F. Carlisle farm, Section 8, Madison Township, Guernsey County.

Dempsey and others are drilling below 1,200 feet on the H. E. Piper farm, Lot 63, Pittsfield Township, Lorain County.

East Ohio Gas Co. is drilling below 3,500 feet in No. 2 on the John Wenhart farm, Section 20, Green Township, Summitt County. Same company is building a rig for No. 1 on the J. H. Wertz farm, Section 31, same township.

Floyd Golden is shut down at 1,400 feet in No. 7 on the G. W. Smith heirs farm, Section 17, Perry Township, Licking County. McClay Brothers are drilling below 1,800 feet in No. 2 on the Fern Smith farm, Section 17, Fallsburg Township, same county.

No completions were reported from the Indiana, Illinois and Kentucky fields for the week.

Total runs made from wells served by the Illinois Pipe Line Co. in western Kentucky in June were 73,828.90 bbls.

Louisiana-Arkansas Fields

(Continued from Page 39)

500,000 feet of gas at 2,492 feet and was going deeper.

With J. B. Hutchinson having a rig up for No. 1 Story Phillips, SW SE Section 28-16-13, John F. Kerper's No. 1 Barron, NE SE Section 17-16-14, in the same condition and McAnneny & Bird also rigged up to drill No. 1 Lawhon-Bogan in the SE NW Section 12-14-16, southwestern Caddo seems to be in for more or less of a play. In Caldwell Parish, Terrell & Price have temporarily abandoned No. 1 Louisiana Central Lumber Co., NW NE Section 18-11-3e, at 1,403 feet. United Gas Public Service Co.'s No. 1 Durritt, NE SE Section 31-20-5, Sugar Creek Trinity gas area of Claiborne Parish, was drilling at 3,193 feet in lime.

In DeSoto Parish

Abernathy and others' No. 1 Nabors, Section 32-13-11, DeSoto Parish, is shut down at 2,547 feet on account of litigation. E. R. Appleby set 1,200 feet of 6⅝-inch casing on No. 1 J. L. Scales, SE SE Section 35-13-12, and was arranging to bail at 1,308 feet. E. M. Self has taken over Carroll & Holden's No. 1 Wagner, NE SW Section 5-12-14, shut down after a twistoff at 2,880 feet, total depth. Bailey Gantz' No. 1 Jenkins, SE SW Section 35-13-12, is shut down at 3,069 feet after a water test. E. T. Oakes was scheduled to drill plug July 15 from 4½-inch cemented at 4,450 feet on No. 1 Bryant, NE NW Section 30-13-15, the "Longstreet deep test" that has been holding its full share of attention and then some for the last month or six weeks. Meanwhile there has been considerable trading in acreage and royalties, and another old abandoned test 6 mils north is reported rigging up to test at around 2,465 feet and, failing there, to deepen to Oakes' level. Jack Whitson's No. 2 Sanders, SW SW Section 19-11-13, is shut down at 3,090 feet in lime after gas shows at 2,860-62 feet and 2,958 feet.

G. W. Hindman has taken over the M. I. Richardson test and block in Rapides Parish, the block consisting of 18,000 acres with the test on the Long-Bell Lumber Co. land in the NE SW Section 30-3n-2w, in the north fringe of the Conroe-Jackson trend play, began drilling July 5 and has 190 feet of 12½-inch set for surface string.

In the Converse Area

In Converse area of Sabine Parish, Nick Barbare's No. 1 Ryals, NW NW Section 27-9-13, is still shut down arranging for acid treatment of the chalk at 1,991 feet. R. L. Gay has rig up to drill No. 1-B Bowman-Hicks in the SW NE Section 22-9-13. Mamie Hammond's No. 1 Patrick, SE SE Section 1-9-13, 4 miles northeast of production, is shut down and temporarily abandoned at 3,235 feet, the only show so far being for gas at 2,012 feet. Derrick is down and the rig stacked. Helena Oil & Gas Co.'s No. 1 H. A. Pugh, SE SE Section 18-9-13, half a mile north of the discovery well, topped chalk at 1,825 feet—about where the discovery well was completed, tested an estimated 15 bbls. of oil at 1,906 feet, was out of the chalk at 2,041 feet and was arranging to plug back and retest. It is beginning to look as though Converse will, in its way, develop into another Zwolle. Mid-Continent Oil Purchasing Co.'s No. 1 Louisiana Long Leaf Lumber Co., SE SE Section 12-7-11, Zwolle, is dry and awaiting orders at 2,875 feet after deepening from 2,642 feet where it was in the same condition.

Arkansas-East Texas

There wasn't anything particularly exciting reported in Arkansas. Benedum & Trees interests have a location, not described, for a well on their block at Bradley, just north of the state line in Lafayette County, which is designed for a deep test. C. W. Alworth was coring No. 1 King, SE SW Section 16-17-20, Columbia County, also scheduled for a 4,000-foot test, at 1,310 feet. J. B. Watkins was coring No. 2 McGehee Planting Co., NE NW Section 5-8-7, Lincoln County, at 1,155 feet. K. E. and W. N. Merren's No. 1 Taafe, NW NW Section 25-12-32,

Little River County, was coring at 2,900 feet.

Black Diamond Oil Co.'s No. 1 Miller Land & Lumber Co., SE SE Section 29-18-27, Miller County, struck a big flow of artesian water at 625 feet and was arranging to kill it or case it off and continue drilling. It probably will have to be cased off since, from description, it is too large a flow to be successfully mudded off. Humble Oil & Refining Co. had the same trouble with several of the series of wells it drilled in Southwest Arkansas in 1926-27. Capt. E. Byrd's No. 1 Westmoreland, SE NE Section 9-19-27, is shut down at 150 feet. C. H. Murphy and others' No. 1 Mann, SW SW Section 2-16-26, an important wildcat 2½ miles southeast of production, missed the "Lenz sand" and was coring at 3,120 feet. Sam Riggs' No. 1 Boyce, SW NE Section 12-15-27, was drilling at 2,900 feet. After a gas show at 1,013 feet that could have made a small commercial well, R. E. Collins' No. 1 Craig, NE SE Section 15-10-29, Sevier County, was drilling hard rock at 1,650 feet.

Harrison County Revives

Harrison County, Texas, long inactive, comes into life with Great Eastern Petroleum Co. resuming activities on No. 1 Rudd in the William Steele Survey which, shut down at 1,590 feet three months ago in chalk, is washing to bottom to resume drilling. Dragon Oil Co.'s No. 1 Player, M. G. Noll Survey, Marion County, which showed for commercial production and went dead after flowing a few hours, set liner without improving its performance, pulled liner, made a 135-bbl. head and will reset for another test. Total depth is 2,428 feet and location is about 3 miles west of Trees City district of the old Caddo Field in Louisiana. The oil is the same green high gravity stuff that the Trees City district produced and is still producing after 27 years from discovery. Mid-Continent Drilling Co.'s No. 1 Wooten in the P. Martin Survey of Panola County, which caused a ripple of interest three weeks or a month ago by making a show of gas with high grade oil from 2,075 feet, tested 10 bbls. of oil with 1,000,000 feet of gas and is arranging to retest a few feet lower. Hampton Drilling Co.'s No. 1 Lloyd Thompson, in the C. Flanagan Survey, 3 miles east of Carthage, cemented 12½-inch surface pipe at 160 feet, and in hard chalk at 1,880 feet was reported checking 80 feet high on the Wooten test, after running into a gas pocket at 1,860 feet. Joe Burnham has taken over the Ajo Oil Co. test on the Nichols & Daniels land in the H. D. Shaw Survey of Red River County and is shut down at 2,150 feet. Meanwhile, reports from Texarkana are to the effect that there is considerable trading going on. Priest and others' No. 1 R. W. Peek, Abram Wagley Survey of Red River County is drilling shale at 2,010 feet. General Minerals Co.'s Foster & Billingsley, in the J. Bowlin Survey, and No. 2 Pickering in the E. L. Chapman Survey, of Shelby County, are inactive so far as reports received here show, and have been for the last several weeks.

Kansas Fields

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McPherson County

Lario Oil & Gas Co.'s No. 2 Hill, NE cor. SE Section 23-19-2w, is a location. Same company's No. 4 Miller, SW cor. SE SE Section 24-19-2w, is a rig. Stanolind Oil & Gas Co.'s No. 5 Zerger, SE cor. NE SE Section 16-21-3w, is a location. Same company's No. 4 Lovett, SW cor. Section 13-19-2w, is a location. McPherson Oil & Gas Co.'s No. 3 Fleming, C NE NW Section 11-19-2w, is a location. Phillips Petroleum Co.'s No. 2 Wiles, CEL NE Section 25-19-2w, is a rig. Same company's No. 6 Anderson, NW cor. Section 30-19-1w, is a location. Same company's No. 3 Garrett, SW cor. NW NE Section 30-19-1w, is a location. United Petroleum Corp. and other's No. 2 Smith, NE cor. NW Section 29-19-1w, is a rig. Rice Oil Corp.'s No. 2 Grattan, SE cor. SW SE Section 19-19-1w, is a location. Clum and others' No. 2 Nelson, SW cor. SE SW Section 12-18-4w, is a rig. Youker and others' No. 1 Eaton, NW cor. NE Section 26-19-2w (old well drilled deeper), is drilling at 3,125 feet. Detrich and others' No. 1 Whittal, NE cor. Section 29-19-1w, made 620 bbls. from 2,968-83 feet. Dickey Oil Co. and others' No. 1 Williams, NE cor. NW Section 26-1-2w, made 360 bbls. from 3,373-79 feet. Palmer and Phillips Petroleum Co.'s No. 1 Winn, NW cor. SW NW Section 7-20-1w, made 89 bbls. from 3,402-22 feet. Same company's No. 2 Winn, SW cor. SE NW Section 7-20-1w, made 300 bbls. from 3,400-18 feet.

Rice County

National Refining Co.'s No. 2 Sherman, NW cor. SE SW Section 16-19-9w, is a rig. Gypsy Oil Co.'s No. 1 Burden, NE cor. SE SE Section 31-19-9w, is a rig. Robertson and Hinkle's No. 1 Cemetery, SE cor. Section 31-19-9w, is a rig. Gypsy Oil Co.'s No. 1 McGlynn, NW cor. SW SW Section 32-19-9w, is a rig. Keith and others' No. 1 Wilke, NW cor. SE SW Section 32-19-9w, is a location. E. F. Jones and others' No. 1 Rose, NE cor. SE SE Section 31-19-9w, made 2,400 bbls. from 3,220-24 feet. Robertson and others' No. 1 Habeggen, SW cor. NW Section 26-18-10w, was abandoned at 3,332 feet.

Reno County

Derby Oil Co.'s No. 1 Stanley SW cor. SE Section 35-23-4w, made 90 bbls. from 3,334-59 feet.

Russell County

J. J. Hall's No. 1 Miller, NW cor. NE NE Section 31-14-13w, made 720 bbls. from 2,909-18 feet.

Saline County

Lario Oil & Gas Co. and others' No. 1 Fulton, SW cor. NW Section 14-16-2w, was abandoned at 3,572-79 feet.

Stafford County

Stanolind Oil & Gas Co.'s No. 2 Allen, SW cor. Section 31-22-11w, is a location. Same company's No. 3 Allen, SW cor. NW SW Section 31-22-11w, is a location.

Gulf Coast Fields and Wildcats

(Continued from Page 41)

Gulf Prod. Co.'s No. 2 Hammerstram, Samuel Kennedy Sur. ..... Comp. 24 bbls. per hour; ¾-in. choke, 5,424 ft.

Humble O. & R. Co.'s No. 4-A Gubbels, Samuel Kennedy Sur. ..... Drlg. gumbo 918 ft.

Humble O. & R. Co. and Gulf Prod. Co.'s No. 9 T. R. Booth, J. Rabb Sur. ..... Drlg. shale 5,362 ft.

Humble O. & R. Co. and Gulf Prod. Co.'s No. 7-A Geo. J. Rabb Sur., 1,744 ft. from W line, 454 ft. from S line ..... Drlg. shale 4,667 ft.

Humble O. & R. Co. and Gulf Prod. Co.'s No. 16 H. P. Lockwood, J. Rabb Sur., 1,450 ft. E of No. 12 ..... T.D. 5,422 ft; cmtd. csg.

Humble O. & R. Co. and Gulf Prod. Co.'s No. 20-A Lockwood & Sharp, 1,867 ft. from W line, 349 ft. from S line of lease ..... Drlg. shale 2,552 ft.

Humble O. & R. Co. and Gulf Prod. Co.'s No. 15-B Lockwood & Sharp, J. Rabb Sur. ..... Drlg. hard sand 3,784 ft.

Powers Prod. Co.'s No. 1 Fred Weisse, Samuel Kennedy Sur., 300 ft. N of S line in center E and W of 10-ac. tract ..... Drlg. shale 5,250 ft.

HIGH ISLAND—GALVESTON COUNTY

Yount Lee Oil Co.'s No. 1-B Broussard & Orme, 126 ft. E of center of W line of M. Dunman Sur. ..... Drlg. shale and lime 3,825 ft.

Yount Lee Oil Co.'s No. 35 Cade, N. Fitzsimmons Sur., 600 ft. S of No. 34 ..... Comp. 138 bbls; 5/32-in. choke, 5,311 ft.

Yount Lee Oil Co.'s No. 36 Cade, N. Fitzsimmons Sur., 600 ft. from S line, 240 ft. E of No. 34 ..... No report.

Yount Lee Oil Co.'s No. 17 Smith, M. Dunman Sur., 300 ft. SW of No. 14 ..... No report.

Yount Lee Oil Co.'s No. 18 Smith, M. Dunman Sur., 175 ft. S of No. 9 ..... No report.

BATSON—HARDIN COUNTY

Danciger O. & R. Co.'s No. 1 Hooks, 95 ft. S, 150 ft. W of NE cor. of Strip 13, Donoghue Sur. ..... Tested S.W. 4,725 ft.

TOMBALL—HARRIS COUNTY

Continental Oil Co.'s No. 1 Agnes Theis, Joseph House Sur., 3,474 ft. from S line, 165 ft. from W line of 50-ac. tract ..... Drlg. sticky shale 1,243 ft.

Humble O. & R. Co. and Magnolia Pet. Co.'s No. 1 Amiel Doege, C. Goodrich Sur., 1,399 ft. N, 1,013 ft. W of SE cor. 90.63 acres ..... Spudded.

Humble O. & R. Co. and Magnolia Pet. Co.'s No. 1 Fritz Kobs, J. N. Hooper Sur., 1,645 ft. S, 330 ft. W, of NE cor. of lease ..... Sand 5,554-70 ft; cmtd. 7-in. csg. 5,554 ft; drilled plug and set 1 joint of 5-in. screen; comp. 37 bbls. per hr.; ½-in. choke.

Humble O. & R. Co. and Magnolia Pet. Co.'s No. 1 G. W. H. Martens, lower W. Hurd Sur., center of 320-ac. tract ..... Set 9 ft. of blank and 42 ft. 7 in. of 5-in. screen, 5,589 ft.; comp. dry gasser; 1,900 lbs. on tubing.

Humble O. & R. Co. and Magnolia Pet. Co.'s No. 1 Herbert Reid, Chauncy Goodrich Sur. ..... Drlg. shale 1,955 ft.

Humble O. & R. Co. and Magnolia Pet. Co.'s No. 1 Emil Schultz, 1,107 ft. N, 900 ft. E of SW cor. of 123.71 acres ..... Spudded.

Magnolia Pet. Co. and Humble O. & R. Co.'s No. 1 Wm. Rudel (63 acres), Joseph House Sur., 350 ft. out of SW cor. of lease .... Set 86 ft. of 5-in. screen in sand 5,508-28 ft; est. 20,000,000 ft. dry gas; ⅝-in. choke; tubing pressure 1,840 lbs.; csg. pressure 800 lbs.

SARATOGA—HARDIN COUNTY

Rio Bravo Oil Co.'s No. 98 Jordit, Jordit Sur. ..... Rig.

Seven Wells Corp.'s No. 1 Teels, T. C. Gaines Sur., NW cor. of 883-ac. tract ..... Drlg. sandy shale 5,723 ft.

ESPERSON—LIBERTY COUNTY

Cranfill-Reynolds Co.'s No. 11 Moores Bluff, Duncan Sur., 2,100 ft. from N line, 1,069 ft. from E line of 632-ac. tract ..... Rig.

HULL—LIBERTY COUNTY

W. B. Flynn's No. 1 Cantor, Jesse DeVore Sur., 150 ft. E and 100 ft. N of SE cor. of tract ..... No report.

The Texas Co.'s No. 8 Hannah (W.O.), Jesse DeVore Sur. ..... Heaving shale 5,117 ft; fishing drill stem.

CONROE—MONTGOMERY COUNTY

Alpha Pet. Co.'s No. 6 Keystone Mills, Lemuel Smith Sur., 933 ft. SW of No. 2 ..... No report.

Alpha Pet. Co.'s No. 7 Keystone Mills, Lemuel Smith Sur., 933 ft. W of No. 1 ..... Sandy shale 5,050 ft.

Alpha Pet. Co.'s No. 1-B Krohn, S. H. Bryan Sur., center of 20-ac. tract ..... Cmtd. surface csg.

Bishop Oil Corp.'s No. 2 Smith & Ratcliff, W. S. Rhodes Sur., 292 ft. from W line, 316 ft. from S line of lease ..... Drlg. 2,250 ft.

H. M. Crighton's No. 1-B South Tex. Dev. Co., T.&N. O. Sur. No. 5, center of tract ..... Comp. 75 bbls. per hour; ½-in. choke, 5,135 ft.

Gulf Coast Drlg. & Prod. Co.'s No. 9-A Keystone Mills, A. S. James Sur., 933 ft. NE of No. 8, 466 ft. from NW line of lease ..... Drlg. shale 4,350 ft.

Harrison & Abercrombie's No. 3 Massey, T.&N.O. Sur. No. 16, 364 ft. ft. out of NE cor. of lease ..... Drlg. shale 3,843 ft.

Houston Oil Co. and Tide Water Oil Co.'s No. 7 Cartwright, John Davis Sur. ..... Drlg. lime and shell 3,463 ft.

Houston Oil Co.-Tide Water Oil Co.'s No. 4 Dobbins, Ransom House Sur., 823 ft. W of No. 5 ..... Cmtd. 7-in. csg. 5,081 ft.

Houston Oil Co. and Tide Water Oil Co.'s No. 7 Hamman, C. B. Stewart Sur., 467 ft. from S and W lines of lease ..... Coring sand and shale 5,077 ft.

Houston Oil Co.-Tide Water Oil Co.'s No. 2 Moore, L. Smith Sur., 250 ft. N line, 456 ft. W line of lease... Cmtd. 7-in. csg. 5,028 ft.

Humble O. & R. Co.'s No. 10 Dobbins, Ranson House Sur., 425 ft. N line, 466 ft. E line of lease ..... Set screen 5,125 ft.

Humble O. & R. Co.'s No. 1 Easterly, C. A. West Sur., 330 ft. from E line, 15 ft. from N line of Blk. 18.... Drlg. shale 4,863 ft.

Humble O. & R. Co.'s No. 5-B Hirsch, D. McIntyre Sur., 330 ft. from E line, 350 ft. from S line ..... Drlg. shale 2,322 ft.

Humble O. & R. Co.'s No. 37 Madeley, Ransom House Sur., 410 ft. from NW line, 281 ft. from NE line.... Drlg. shale 3,246 ft.

Humble O. & R. Co.'s No. 36 Moore, Lemuel Smith Sur... Drlg. hard sand 3,654 ft.

Humble O. & R. Co.'s No. 41 Moore, Lemuel Smith Sur., 2,097 ft. SW, 300 ft. SE at right angles out of most easterly NE cor. of lease ..... Cmtd. csg. 5,060 ft.

Humble O. & R. Co.'s No. 34 South Tex. Dev. Co., Theo. Slade Sur., 1,010 ft. NE of No. 25 ..... Drlg. shale 3,437 ft.

Humble O. & R. Co.'s No. 1 Rogers, C. A. West Sur., 410 ft. from N line, 300 ft. from E line of lease ... Drlg. shale 3,455 ft.

Humble O. & R. Co.'s No. 1 Woodson, C. A. West Sur., 9 ft. from N and W lines of Lot 47 ..... Drlg. shale 2,296 ft.

Humble O. & R. Co.'s No. 1 O. Wooten, J. A. Davis Sur., 270 ft. from S line, 200 ft. from W line ..... Comp. 51 bbls. per hour; ½-in. choke, 5,139 ft.

Navarro Oil Co.'s No. 2 Brown, E. P. Brown Sur. ..... T.D. 5,030 ft; cmtd. 7-in. csg.

Navarro Oil Co.'s No. 3 Brown, 114 ft. N of center of S line of E. B. Brown Sur. ..... Comp. 75 bbls. per hour; ½-in. choke, 5,100 ft.

R. D. Simonton, receiver's No. 1 Hooper, J. W. Watson Sur., center of S 20 acres of 60-ac. tract ..... Drlg. sand and shale 4,925 ft.

Strake Pet., Inc.'s No. 4 Ethridge, S. H. Bryan Sur., 712 ft. W of No. 3 ..... No report.

Sun Oil Co.'s No. 19 Foster, John Bricker Sur., 933 ft. SE of No. 5 ..... No report.

Sun Oil Co.'s No. 1 McDonald, Wilson Strickland Sur., 469 ft. from W line, 409 ft. from N line ..... Coring 5,135 ft.

The Texas Co.'s No. 14 Rhodes, W. S. Rhodes Sur., 1,060 ft. from W line, 1,470 ft. from S line ..... T.D. 5,010 ft; drill pipe stuck; abd.

The Texas Co.'s No. 15 Rhodes, W. S. Rhodes Sur., 388 ft. from N line, 388 ft. from E line of lease ..... Comp. 89 bbls. per hour; ½-in. choke, 5,123 ft.

The Texas Co.'s No. 16 Rhodes, W. S. Rhodes Sur., 330 ft. S of N line, 467 ft. E at right angles from W line T.D. 5,072 ft; cmtd. 7-in. csg. 5,025 ft.

Tide Water Oil Co.'s No 9 Dean, W. C. C. Lynch Sur., 330 ft. from N line, 990 ft. from W line of lease ... Comp. 89 bbls. per hour; ½-in. choke, 5,125 ft.

Tide Water Oil Co.'s No. 10 Dean, W. C. C. Lynch Sur., 2,349 ft. from E line, 467 ft. from S line ..... Comp. 85 bbls. per hour; ½-in. choke, 5,125 ft.

Tide Water Oil Co.'s No. 11 Dean, W. C. C. Lynch Sur... Drlg. lignite 5,033 ft.

Tide Water Oil Co.'s No. 5 Krohn, S. H. Bryan Sur., 990 ft. from E line, 330 ft. from S line of lease .... T.D. 5,080 ft; cmtd. 7-in. O.D. csg.

Tide Water Oil Co.'s No. 21 Lewis, C. B. Stewart Sur., 467 ft. out of SE cor. "B" tract ..... Comp. 93 bbls. per hour; ½-in. choke, 5,130 ft.

LIVINGSTON—POLK COUNTY

Dick Schwab's No. 2 Craig, A. Viesca Sur., 330 ft. N, 330 ft. W of NE cor. of Shell's Munson 41.35-ac. tract ..... Derrick.

Dick Schwab's No. 3 Holmes-Davis, A. Viesca Sur., 157 ft. out of SW cor. 30-ac. tract ..... Sand 4,320-94 ft; 7-min. D.S. test; 650 lbs. gas pressure; ½-in. choke; showed S.W.

Shell Pet. Corp.'s No. 1 Munson, A. Viesca Sur., 330 ft. out of NE cor. of tract ..... Oil sand 4,320 ft; cmtd. 7-in. csg. 4,282 ft.

ORCHARD—FORT BEND COUNTY

Gulf Prod. Co.'s No. 36 Moore, Mark Smith Sur., 4,792 ft. S along E line from NE cor. and 325 ft. W at right angles ..... Drlg. 845 ft.

FANNETT—JEFFERSON COUNTY

Gulf Prod. Co.'s No. 2-A Junker, W. A. Smith Sur., 100 ft. from N line, 320 ft. from E line of lease ..... Drlg. 925 ft.

HANKAMER—LIBERTY COUNTY

Gulf Prod. Co.'s No. 2 Crowe & Jacobs, 1,700 ft. E, 1,050 ft. N of SW cor. of H.&T.C. Sur. No. 21 ..... Rig.

HOCKLEY—HARRIS COUNTY

John Deering's No. 4 Warren, T. A. Scully Sur., 250 ft. SW of Texas Co.'s No. 2 Warren ..... Derrick.

PORT NECHES—ORANGE COUNTY

The Texas Co.'s No. 1 Orange Nat. Bank, 150 ft. out of NW cor of lease, Jacob Beaumont Sur. ..... Shale 4,732 ft; reaming hole to 12¼ inches.

GRETA—REFUGIO COUNTY

Alamo Oil Co.'s No. 2 O'Brien, E. H. Winfield Sur., 536 ft. S of N line in center E and W of 50-ac. tract ..... Cmtd. 10-in. csg. 1,265 ft.

Atkins & O'Neil's No. 1 O'Brien, 940 ft. N of S line of J. T. McGrew Sur., 750 ft. W of R.R. ..... Tested S.W. 4,436 ft.

Blanco Oil Co.'s No. 1 J. M. O'Brien, E. H. Winfield Sur., 330 ft. out of NE cor. of 50.36-ac. tract ..... Reaming to set csg. 1,312 ft.

Circle W Oil Co.'s No. 1 O'Brien, E. H. Winfield Sur., 463 ft. from S line of survey, 466 ft. from E line of 112-ac. tract ..... Derrick.

Dash Prod. Co.'s No. 1 J. M. O'Brien, N. S. Crunk Sur., 150 ft. out of most easterly cor. of 50-ac. tract.. Drlg. shale 2,581 ft.

Greta Oil Corp.'s No. 3 O'Brien, E. H. Winfield Sur., 150 ft. out of SW cor. of tract ..... Rig.

Heep Oil Corp.'s No. 1-B O'Brien, N. S. Crunk Sur. .... Drlg. gumbo 637 ft.

Heyser & Heard's No. 1 O'Brien, E. H. Winfield Sur., 330 ft. out of SW cor. of 50-ac. tract ..... Spudded.

Nesral Oil Co.'s No. 1-A Wilson Heard, M. J. Ximines Sur., 330 ft. out of NE cor. lease ..... T.D. 296 ft; rigging up after blow-out.

Nesral Oil Co.'s No. 1 Ira Heard, M. J. Ximines Sur., 330 ft. out of NW cor. of 25-ac. tract ..... Spudded.

Vidauri Oil Co.'s No. 1 Welder, 330 ft. S of N line of James T. McGrew Sur., and 700 ft. W of R.R. .... Drlg. sand and shale 4,148 ft.

REFUGIO—REFUGIO COUNTY

United Prod. Corp.'s No. 1-A M. F. Lambert, 666 ft. from N line, 822 ft. from W line of Hews & Brown Sur. ..... No report.

SOUTH LOUISIANA FIELDS

ASSUMPTION PARISH

Barnsdall Oil Co.'s No. 1 Williams, 330 ft. out of NE cor. Sec. 38-14s-14e ..... No report.

BEAUREGARD PARISH

Burnham & Johnson's No. 1 Long Bell, 725 ft. S, 155 ft. E of NW cor. NW NW Sec. 34-2s-3w ..... Sand and shale 3,076 ft; S.D.

CALCASIEU PARISH

Quintana Oil Co.'s No. 1 Nelson, 1,515 ft. N, 85 ft. W of SW cor. Sec. 23-10s-9w ..... Drlg. shale 4,800 ft.

Union Sulphur Co.'s No. 1 Stout, 1,287 ft. N, 1,167 ft. W of SE cor. Sec. 36-8s-8w ..... Drlg. hard sand 6,055 ft.

CAMERON PARISH

The Texas Co.'s No. 8 State-Calcasieu Lake, 14,255 ft. W, 3,270 ft. N of NE cor. Sec. 1-14s-9w ..... Drlg. salt 3,375 ft.

CAMERON MEADOWS—CAMERON PARISH

Burton-Sutton Oil Co.'s No. 1 School Land, 500 ft. W and 20 ft. N of SE cor. Sec. 16-14s-13w ..... No report.

DARROW—ASCENSION PARISH

Rio Bravo Oil Co.'s No. 1 Community, 200 ft. N line, 1,500 ft. E at right angles from SW cor. Sec. 15-10s-2e ..... No report.

GUEYDAN—VERMILLION PARISH

Pure Oil Co.'s No. 4 Alliance Trust Co., 578 ft. from N line and 1,921 ft. from W line of Sec. 34-11s-1w.. Oil sand 3,454-59 ft.

Pure Oil Co.'s No. 5 Alliance Trust Co., 525 ft. from N line, 550 ft. from W line of Sec. 34-11s-1w ..... Drlg. sand 3,958 ft.

LOCKPORT—CALCASIEU PARISH

Union Sulphur Co.'s No. 5 Martha Moss, Sec. 8-10s-9w... Drlg. 1,650 ft.

BLACK BAYOU—CAMERON PARISH

Shell Pet. Corp.'s No. 15 Watkins, 1,890 ft. from N line and 680 ft. from E line of Sec. 18-12s-12w ..... Drlg. sandy shale 4,417 ft.

HACKBERRY—CAMERON PARISH

Gulf Ref. Co.'s No. 12 Irwin, 865 ft. N, 518 ft. E of SW cor. Sec. 44-12s-9w ..... Drlg. sand 2,900 ft.

Wilfred Lahey's No. 1 Aroux, center 2-ac. tract, Sec. 36-12s-10w ..... Rock 2,610 ft.

Pop Oil Co.'s No. 1 Yount Lee, 3,996 ft. W and 100 ft. N of SE cor. Sec. 19-12s-10w ..... Drlg. sand 2,525 ft.

Union Sulphur Co.'s No. 6 Gulf Land-Humble Lease, Sec. 11-12s-10w, 245 ft. W and 210 ft. S of No. 4.... Comp. 1,300 bbls.; ⅝-in. choke 6,-013 ft.

IOWA—CALCASIEU AND JEFF DAVIS PARISHES

Magnolia Pet. Co.'s No. 1 Bowman, 330 ft. out of NE cor. S½ NW Sec. 12-9s-7w ..... Sand showing oil 6,910 ft.

Magnolia Pet. Co.'s No. 4 Waite, Sec. 13-9s-7w, 330 ft. from E line, 660 ft. S of No. 3 ..... Rig.

Shell Pet. Corp.'s No. 4 Fontenot, Sec. 7-9s-6w, 330 ft. out of NW cor. of lease ..... T.D. 6,913 ft; drlg. plug.

Shell Pet. Corp.'s No. 4 Heyd, 3,122 ft. W, 1,310 ft. S of NE cor. Sec. 13-9s-7w ..... Blowing wild and burning; T.D. 4,929 ft.

Shell Pet. Corp.'s No. 2 Stafford, 330 ft. from W line and 365 ft. from S line of NW Sec. 18-9s-6w ..... Drlg. sandy shale 5,287 ft.

JEFFERSON DAVIS PARISH

Humble O. & R. Co.'s No. 2 Devilbiss, 1,350 ft. S, 350 ft. W of NE cor. Sec. 14-9s-4w ..... Drlg. shale 7,639 ft.

JENNINGS—ACADIA PARISH

Yount Lee Oil Co.'s No. 13 Houssiere-Latrielle, Sec. 47-9s-2w, 300 ft. E of No. 12 ..... Drlg. shale 2,435 ft.

STARKS—CALCASIEU PARISH

Union Sulphur Co.'s No. 1 Industrial, 1,316 ft. S, 2,254 ft. W of NE cor. Sec. 30-9s-12w ..... Sand 3,925 ft.

Union Sulphur Co.'s No. 2 Industrial, 1,245 ft. N, 390 ft. E of SW cor. Sec. 20-9s-12w ..... Drlg. sandy shale 3,696 ft.

SWEET LAKE—CAMERON PARISH

Pure Oil Co.'s No. 11 Yount Lee, Sec. 13-13s-8w, 800 ft. S 66 deg. 43 min. from No. 9 ..... Heaving shale 8,070 ft; P.B. to 7,210 ft; sidetracked at 7,154 ft. to oil sand 7,350 ft; set 1 joint 6⅝-in. screen; comp. 57 bbls. per hr.; ⅝-in. choke; tubing pressure 760 lbs.

SULPHUR—CALCASIEU PARISH

Union Sulphur Co.'s No. 744 fee (W.O.), 2 ft. S, 34 ft. W of C Sec. 29-9s-10w ..... Drlg. shale 5,610 ft.

Union Sulphur Co.'s No. 747 fee, 750 ft. W, 5 ft. S of C Sec. 29-9s-10w ..... Salt 3,475 ft.; P.B. to 3,475 ft.; comp. 630 bbls.; T.D. 3,503 ft.

Union Sulphur Co.'s No. 733 fee, Sec. 29-9s-10w ..... Drlg. shale 5,020 ft.

ST. MARTIN PARISH

Standard Oil Co. of Kansas' No. 1 E. B. Hopkins, Sec. 33-10s-6e ..... Drlg. shale 1,515 ft.

TERREBONNE PARISH

Sun Oil Co.'s No. 1 State-Taylor Bayou, 3,216 ft. S, 3,790 ft. E of NW cor. Sec. 22-21s-14e ..... Drlg. shale 1,604 ft.

The Texas Co.'s No. 8 State-Caillou Island, 1,050 ft. S, 3,770 ft. E of NW cor. Sec. 20-23s-20e ..... Oil sand 5,972 ft; drlg. plug.

The Texas Co.'s No. 6 State-Dog Lake, 4,067 ft. W, 1,877 ft. N of SE cor. Sec. 31-21s-16e ..... T.D. 5,400 ft; sidetracked at 3,-304 ft; drlg. new hole 4,225 ft.

The Texas Co.'s No. 1 State-Four Isle, 1,800 ft. N, 1,-700 ft. W of SE cor. Sec. 23-21s-14e ..... Drlg. shale 5,375 ft.

The Texas Co.'s No. 1 School Board-Bay St. Elaine, 2,250 ft. S, 400 ft. E of NW cor. Sec. 16-22s-18e..... Dry and abd. 4,604 ft.

TEXAS

MISCELLANEOUS WILDCATS

AUSTIN COUNTY

Turnbull et al's No. 1 Watson, Stephen F. Austin Sur. No. 6, 150 ft. out of SE cor. of 115.6-ac. tract ..... Spudded.

BRAZORIA COUNTY

E. A. Anderson et al's No. 1 Reynold, Johnson, Walker & Borden League, 5,502 ft. from W line, 850 ft. from W line of 122-ac. lease ..... Drlg. gumbo 2,832 ft.

Amerada Pet. Corp. and Rycade Oil Corp.'s No. 4 Seaburn, Austin & Williams Sur., 150 ft. W of No. 3 on line with Nos. 1, 2 and 3 ..... Drlg. sand and lime 3,747 ft.

Danciger O. & R. Co.'s No. 2 Hunt, 6,550 ft. from E line, 5,550 ft. from S line of W. Carson Sur. ..... Drlg. sandy shale 7,416 ft.

BRAZOS COUNTY

F. H. Scott's No. 1 Klintworth, I. Curd Sur., 300 ft. NE line, 400 ft. SE line of tract ..... Cmtd. surface csg.

Stone Oil Co.'s No. 1 Walling, Alex De la Garza Sur., 150 ft. from E line, 300 ft. N of river ..... Derrick.

CHAMBERS COUNTY

Mills & Jones' No. 1 Gan, John S. Roberts Sur., 255 ft. W, 1,052.72 ft. S of NE cor. of 138-ac. tract .... Sand rock 5,025 ft; S.D.

COLORADO COUNTY

Fabrigus & Poole's No. 1 Lake Side Irrigation, 1,500 ft. SE, 500 ft. NE NW cor. Patrick Real Sur. ..... T.D. 1,445 ft; cmtd. 12½-in. csg. 1,150 ft.

Humble O. & R. Co.'s No. 1-B O. M. Powell, 1,320 ft. from S line, 467 ft. from W line of Sec. 45, I.&G. N. Sur. ..... Drlg. shale 1,005 ft.

McCullouch Oil Co.'s No. 1 Kansteiner, Lelander Beason Sur., 300 ft. out of NE cor. of tract ..... Cmtd. 10-in. csg. on bottom 260 ft.

Plymouth Oil Co.'s No. 1 Broussard, 2,200 ft. N and 426 ft. W of SW cor. Sec. 47, I.&G.N. Sur. ..... Derrick.

Weimar Oil Co.'s No. 1 H. T. Brandt, F. Pettus Sur., 250 ft. from N line, 250 ft. from E line of tract .... Drlg. sand 4,635 ft.

Weimar Oil Co.'s No. 1 Miller ranch, approx. center H.&T.B. Sur. No. 9 ..... Derrick.

FORT BEND COUNTY

Fresno Oil Corp.'s No. 1 M. T. Wood, T. Gleason Sur., center of 10-ac. tract (Blk. 474) ..... Drlg. gumbo 3,020 ft.

GRIMES COUNTY

Cambrian Oil Co.'s No. 1 W. V. Sangster, John Moore Sur., 300 ft. out of most westerly NW cor. of 218-ac. tract ..... Derrick.

Koch et al's No. 1 Haferkamp, Samuel Fulton Sur., 335 ft. from S line, 347 ft. from E line of 189 acres.. T.D. 3,517 ft; standing.

Petroleum Southwest Co.'s No. 1 Greer, Pat O'Connor Sur., 200 ft. from W line, 400 ft. from N line of 150-ac. tract ..... T.D. 3,758 ft; pulling screen and liner.

HARRIS COUNTY

Aven Oil Co.'s No. 1 Herman Teske, J. Duckworth Sur., 150 ft. from S line and 184 ft. from E line of 160 acres ..... Drlg. sand 3,094 ft.

Burns, Ogg & Houston's No. 1 Kenning, H.&T.B. Sur., 330 ft. S line and 550 ft. W line ..... Derrick.

Cockburn Oil Corp.'s No. 1 C. Marcus, Wm. Hardin Sur., 1,500 ft. S along E line of 55-ac. tract from Buffalo Bayou and 300 ft. W at right angles ..... Rigging up.

Gohlson & Parson's No. 1 W. E. Freeman, 330 ft. SE cor. Sec. 57, Blk. 2, H.&T.C.R.R. Sur. ..... Rig.

Hamill Drlg. Co.'s No. 1 Clara W. Walker (38 acres), Chas. Sage, 250 ft. W of E line, 660 ft. S of south bank of Buffalo Bayou ..... Rig.

Hamilton et al's No. 1 Hargroves, W. C. Ry. Sur. No. 10, Blk. 1; 1,750 ft. from E line, 645 ft. N line .... Drlg. shale 3,915 ft.

Huffman Dome Dev. Co.'s No. 1 E. M. House, Mary McGruder Sur., 590 ft. E of NW cor. H.E.&W.T. Ry. and 954 ft. N at right angles ..... Drlg. sandy shale 3,722 ft.

H. B. Jordan's No. 1 Cochran, J. L. Jordan Sur., 1,950 ft. S line, 1,930 ft. E line ..... Shale 1,558 ft; S.D.

Melba Oil Co.'s No. 1 L. B. House, 160 ft. from N line, 600 ft. from E line, Sec. 22, Harris County School Land Sur. ..... Derrick.

Jack Schultz et al's No. 1 Woodburn, 450 ft. NW of center of August Whitlock Sur. ..... Drlg. shale and lime 5,182 ft.

JACKSON COUNTY

The Texas Co.'s No. 1 Mitchell, S. F. Austin League, 450 ft. W, 450 ft. S of NE cor. of 63-ac. tract, Lot 28, Clement Subd. ..... Drlg. sticky shale 5,206 ft.

JEFFERSON COUNTY

W. J. Parker's No. 1 Rorck, A. Williams Sur. ..... S.D. 2,550 ft.

Sun Oil Co.'s No. 1 Paggi, 990 ft. W, 1,610 ft. N of SE cor. of T.&N.O. Sur. No. 32 ..... Drlg. shale 3,026 ft.

LIBERTY COUNTY

Yount Lee Oil Co.'s No. 1 E. W. Boyt, H.&T.C. Sur., Sec. 17, 300 ft. from S line, 2,440 ft. from E line of section ..... Drlg. shale 9,235 ft.

MATAGORDA COUNTY

Continental Oil Co.'s No. 1 Baker, 400 ft. out of SW cor. Lot 17, Robbins & Middle Subd., J. W. Criswell Sur. ..... Drlg. gumbo 1,961 ft.

Oils Consolidated, Inc.'s No. 1 Hawkins, 1,240 ft. NE, 350 ft. NW of S cor. of Daniel McCarthy Sur. ..... Derrick.

United North & South Dev. Co.'s No. 1 Unit 6 (No. 2 Stoddard), 25 ft. each way out of NW cor. of Lot 19, Buckeye Townsite ..... T.D. 7,836 ft; milling out to sidetrack 5,100 ft.

United North & South Dev. Co.'s No. 1 Unit 14 (No. 1 Dr. Plotner), 1,210 ft. SE of No. 1 Stoddard and 136 ft. W of right of way of Collegeport branch of St. L.&B.M.R.R., Buckeye ..... Set 157 ft. of 5-in. screen 7,862 ft.; swbd. dry; S.D.

United North & South Dev. Co.'s No. 1 Unit 25, 1,335 ft. S, 1,000 ft. E of No. 1 Unit 6 ..... T.D. 7,814 ft; cmtd. 7-in. (O.D.) csg.

MONTGOMERY COUNTY

Fostoria Oil Co.'s No. 1 Foster Lbr. Co., 1,180 varas W, 637 varas N of SE cor. H.T.&B. Sur. No. 2 ..... Drlg. sandy shale 3,165 ft.

Showers & Moncrief's No. 1 Rohlf, 694 ft. from S line, 3,325 ft. from W line of Daniel Garrett Sur. (Abst. 224) ..... Derrick.

L. C. Thorpe's No. 1 Sutherland, 2,450 ft. from E line, 1,350 ft. from N line of C. McRae Sur. ..... Derrick.

POLK COUNTY

C. E. Stewart's No. 1 Stephenson, E. Stevenson Sur. (Abst. 761), 1,632 ft. from N line, 920 ft. from W line of 217 acres ..... Rig.

VICTORIA COUNTY

Gulf Prod. Co.'s No. 4 Keeran, Martin DeLeon Sur., 3,320 ft. N 41 deg. 43 min. W, parallel to NE line of lease from No. 1 ..... No report.

The Texas Co.'s No. 6-A McFaddin, 5,600 ft. from NE line, 250 ft. from SE line of A. J. Gray ..... T.D. 2,424 ft; pumping wtr. into sand 1,987-2,010 ft. to kill gas pressure.

The Texas Co.'s No. 7 McFaddin, 4,600 ft. S 15 deg. W, 450 ft. N 75 deg. W at right angles from the NE cor. of the A. J. Gray Sur. ..... T.D. 1,176 ft; blowing gas and mud.

WALLER COUNTY

Hobson & Moore's No. 1 Peters, Justo Liendo Sur., 590 ft. W of creek, 1,144 ft. N of S cor. ..... No report.

WASHINGTON COUNTY

Clark & Cowden's No. 1 F. A. Ammons, S. Woodward Sur., 16,500 ft. from N line, 775 ft. from E line of survey ..... Derrick.

WHARTON COUNTY

Pure Oil Co.'s No. 1 Stewart, 2,419 ft. NW, 1,650 ft. NE of S cor. of Sec. 16, Morris & Cummings Sur. ..... T.D. 8,015 ft; to P.B. to sand at 5,963-71 ft.

Pure Oil Co.'s No. 1 Chas. T. Kuntze, 2,183 ft. from NW line, 467 ft. from SW line, Sec. 27, Morris & Cummings Sur. ..... Drlg. sandy shale 3,650 ft.

Smith & McDannald and Shell Pet. Corp.'s No. 1 Ridgeway, 1,980 ft. from S, 660 ft. from W of NE cor. Sec. 8, H.&T.C. Sur. ..... Rigging up.

Wildcat Operations in Southwest Texas

(Continued from Page 40)

Motes-Campbell's No. 2 Pruitt, 300 ft. N of No. 1 on 187-ac. tract, McCullough County Sur., Blk. 4,299.... T.D. 1,833 ft; in crevice in Edwards.

H. A. Pagenkopf's No. 1 G. A. Goeth, 500 ft. from SE line, 600 ft. from SW line which is San Antonio River, Juan Montes Sur. ..... T.D. 205 ft; drlg.

O. L. Ray's No. 1 Thos. Dillon, 2,500 feet from NW line, 1,750 ft. from most southerly SW line of de Luna grant in southern part of county ..... T.D. 630 ft; standing.

J. Morgan Russell's No. 2 Bretze, 300 ft. W of No. 1, in Cordenas Sur. ..... T.D. 340 ft.; standing.

C. A. Smith's No. 1 Henry Lamb, 750 ft. from N and E lines of Lamb farm, in de la Garza grant ..... Spudded in and waiting for heavier rig.

F. E. Tegler's No. 1 Brackenridge, 578 ft. from S line, 2,284 ft. from W line of tract in Maria Gertrudis de Alaniz Sur. ..... T.D. 965 ft; standing.

Tipton's No. 1 Gembler, 514 ft. from W line, 616 ft. from N line of 120-ac. tract in M. Gotari Sur. ..... Spudded in.

BLANCO COUNTY

Blanco Development Co.'s (McGee) No. 1 A. J. Dittmar, 1,320 ft. from S line, 150 ft. from W line of George Evans Sur. No. 55, 4 miles NW of Johnson City ..... T.D. 405 ft; drlg.

Isham et al's No. 1 Lester ranch, 200 varas from N and E lines of Antonio Bandrand Sur., 3 miles NE from Johnson City ..... T.D. 100 ft.; drlg.

CALDWELL COUNTY

Cargill et al's No. 1 Brown, 1,600 ft. from E line, 330 ft. from S line of C. E. Brown 112-ac. tract, Dillard Cooper Sur. ..... T.D. 2,035 ft; in chalk.

E. L. Hope and Joe Cole's No. 1 Mike August, 150 ft. from NE line, 165 ft. from NW line of tract ..... T.D. 1,598 ft.; moving in boiler.

F. L. Thomson's No. 1 W. M. Mercer, 1,062 varas from SE, 1,175 varas from SW line of Jas. Berry Sur. .... Fishing for slip.

DE WITT COUNTY

L. G. Wade's No. 1 fee, 6 mi. S from Yoakum, 520 ft. from NW line, 160 ft. from SW line of 35-ac. tract in Lavina Dunbar Sur. ..... T.D. 2,402 ft; drlg.

DUVAL COUNTY

Clark & Miller's No. 1 R. Lopez, 150 ft. from N line, 330 ft. from W line of Sur. 141, S. C. I. Co., 8 miles SW from San Diego ..... T.D. 1,760 ft; sanding.

M. J. Coffey's No. 1 Parr, 591 ft. from W line, 270 ft. from N of NW cor. of Sec. 2, located in Sur. 27 ..... T.D. 1,710 ft.; waiting for new boiler.

T. J. Conway and C. A. Campbell's No. 1 W. K. Hoffman, 330 ft. from NW line, 1,650 ft. from NE line of Sur. No. 114 ..... Spudded in.

DeSoto Oil Co.'s No. 2 Woof-Welder, 660 ft. E of No. 1 (950 ft. from N line, 2,640 ft. from W line of Sur. No. 211 ..... Building derrick.

DeLange & Snider's No. 1 Sanchez, 330 ft. from N and E lines of 80 acres in Blk. 35 of Sur. No. 197 ..... T.D. 2,800 ft; abd.

Huff et al's No. 1 A. Roach, 695 ft. from E line, 43 ft. from S line of Blk. 7, Sur. No. 457 ..... Spudded and S.D.

Magnolia Pet. Co.'s No. 1 Duval County Ranch Co., 330 ft. from S and E lines of NE of Sur. No. 363 ..... T.D. 2,264 ft; comp. pumping 95 bbls. dly.

G. G. Mortimer's No. 1 Peal, 330 ft. from S and W lines of Sur. No. 793 ..... T.D. 2,411 ft; fishing.

William B. Stewart's No. 3 Duval County Ranch Co., 300 ft. from E line, 330 ft. from W line of S half of SE, Sur. 363 ..... T.D. 1,275 ft; drlg.

FRIO COUNTY

J. E. Greenlee's No. 2 Burns, 150 ft. from W line, 1,800 ft. from S line of SE of 160-ac. tract, Castro Sur. No. 123 ..... T.D. 2,300 ft; drlg.

GILLESPIE COUNTY

Powers et al's (Nixon-Dore) No. 1 Andrew Lindig, 18 mi. E of Fredericksburg ..... T.D. 730 ft; drlg. limey shale.

GOLIAD COUNTY

Gillette Oil Co.'s No. 1 Lackey & Weldon, 1,730 ft. from NE line, 2,700 ft. from SE line of 1,000-ac. tract, Navarro Gomez Sur. ..... Spudded in.

GUADALUPE COUNTY

Clint Lanier's No. 1 L. D. Hill, 450 ft. from NW line, 1,450 ft. from NE line of George Allen Sur. ..... Rig on ground.

J. A. Harper's No. 1 Rosenbrook, 911 ft. from NE line, 150 ft. from NW line of tract in Vincente Duran Sur. No. 4 ..... T.D. 756 ft; standing.

HIDALGO COUNTY

Carl & Johnston's No. 1 Doughty, 187 ft. from S and E lines of Lot 11, Blk. 6 of Subd. of Indios Ranch Sur. in N. Hidalgo ..... T.D. 2,945 ft; coring.

Maxwell & Young's No. 1 King, 175 ft. from N and E lines of Lot 3, Blk. 16, Alamo tract ..... T.D. 125 ft; standing in quicksand waiting for csg.

JIM HOGG COUNTY

Cole Pet. Co.'s No. 1 Vela and Pena Bros., 330 ft. from W line and on line between Blks. 80 and 81, White Subd. of Share 2, Sur. 538, of El Peyote grant ..... Rigged up.

D. C. DeWitt's No. 1 A. G. Lopez, 3,475 ft. from W line, 425 ft. from N line of Sur. No. 106 ..... T.D. 1,650 ft; standing.

R. F. Foree's No. 1 Holbien, 150 ft. from N and W lines of Blk. 54, Sec. 9 of Holbien Sur. of Share 3 of Las Animas grant ..... T.D. 3,120 ft; standing.

Seaton A. Barnes, Jr.'s No. 1 R. Holbien, 220 ft. from W line, 340 ft. from S line, of Blk. 54, share 3, Los Animas tract ..... T.D. 2,322 ft; drlg.

Shankle et al's No. 1 Thompson, Blk. 19, Share 2, Las Animas grant ..... T.D. 2,100 ft; drlg.

KARNES COUNTY

Accumulative Royalty Co.'s No. 1 Rudd, 6 mi. S from Karnes City ..... T.D. 640 ft; drlg.

Tippett & Mull's No. 1 Smith, 8,500 ft. from N line, 200 ft. from E line of Francis Haskins Sur. ..... T.D. 580 ft; abd.

John S. Pickett's No. 1 Salge, 150 ft. from W line, 750 ft. from N line of John Pate Sur., 2 mi. N from Karnes City ..... T.D. 100 ft; drlg.

KENDALL COUNTY

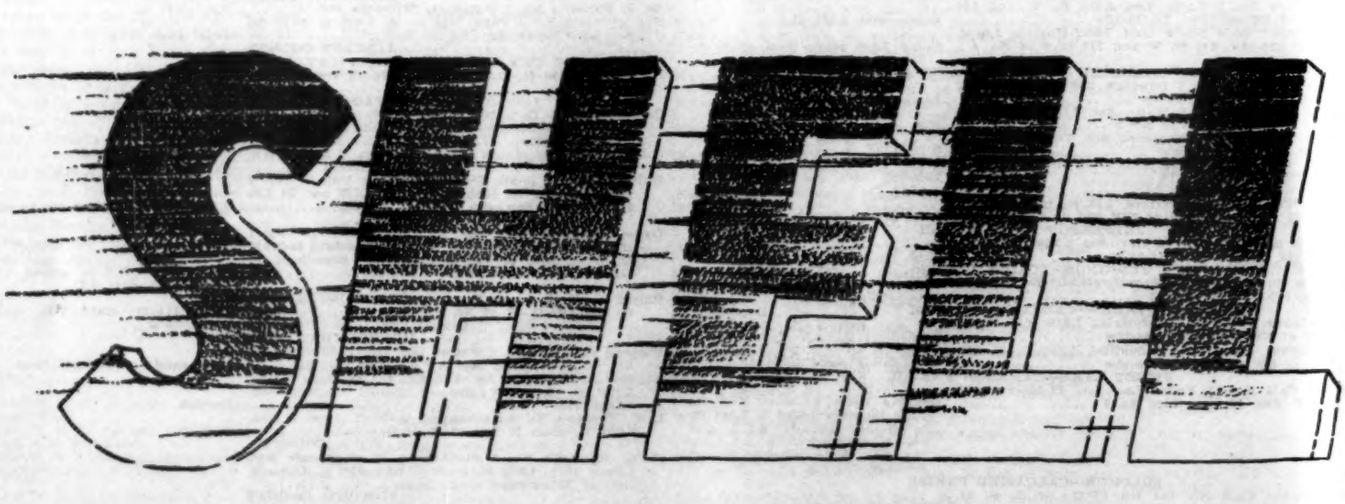
E. W. Martin's No. 1 Houston, in F. Wright Sur. ..... T.D. 727 ft; drlg limey shale.

KERR COUNTY

J. E. Anderson's No. 1 J. D. Witt, 1,320 ft. from N line, 1,320 ft. from W line of Sec. 1,923, in Hamilton Sur., 4 miles S of Center Point ..... T.D. 1,520 ft; drlg.

W. E. Clark's No. 1 Love, 660 ft. from N and W lines of Mrs. Cassandra Winn Sur. No. 1,759 ..... Rigging up.

Eastland Oil Co.'s No. 1 Love, 1,100 ft. SW of Evans & Gant's No. 1 Love ..... T.D. 3,508 ft; abd.



LA SALLE COUNTY

C. B. Bunte's No. 1 Mrs. T. A. Coleman, CNL NE Sec. 48, Poitevant Sur. ..... T.D. 1,933 ft; drlg.
E. O. Mead's No. 1 Los Angeles Townsite Sur. No. 38 .... T.D. 2,687 ft; abd.
W. H. Wallace's No. 1 H. C. Yeager, 150 ft. from S and E lines of Sur. No. 95 ..... T.D. 1,260 ft; drlg.

LEE COUNTY

Paten Bros.' No. 1-B Turner, 424 ft. from NW line, 375 ft. from NE line of 51.9-ac. tract in David Hudson Sur. ..... T.D. 6,626 ft; abd.

LIVE OAK COUNTY

Coquat, O'Neill & Phillips' No. 3 Sanger, 2,930 ft. from SW line, 330 ft. from SE line of Sur. No. 350..... Spudded in and set surface csg.
Loma Oil Co.'s No. 1 A. J. Turner, 4,000 ft. from SW and 160 ft. from SE line of 660-ac. tract in Hays Sur. 2 mi. NE from Griffith well ..... T.D. 100 ft; drlg.
R. P. Whitfield's No. 1 Terrell, SW cor. of 2,500-ac. tract in David O'Boyle Sur., 5 mi. NW from Three Rivers ..... T.D. 640 ft; waiting on orders.

McMULLEN COUNTY

Boysen & Hotchkin's No. 1 Hagist, 1,650 ft. from W line, 990 ft. from N line of 160-ac. tract in G. B. Kinney Sur. No. 5 ..... T.D. 2,118 ft; S.W. in Gov. Wells sand.
Darby Oil Co.'s No. 1 Sling, 150 ft. from S and E lines of NE of B.S.&F. Sur. No. 111 ..... T.D. 1,902 ft; standing for wtr.
John V. Edwards' No. 1 J. T. Brown, 150 ft. from river and 150 ft. from NW cor. of Brown tract ..... Drlg.
C. R. Pope, Inc.'s No. 1 A. C. Miles, 300 ft. to E line, 2,375 ft. to S line, Sur. 149 ..... T.D. 2,165 ft; no report.
V. G. Schimmel's No. 2 H. F. C. Wulf, 150 ft. from S line, 660 ft. from W line of W½ NW Sec. 72, of Two Rivers Ranch Sur. ..... T.D. 1,482 ft; abd.
Shumway et al's No. 1 Wulf, Sur. 4 miles SE from No. 2 Shiner, 1,730 ft. from S line, 167 ft. from W line of Steinhardt Sur. No. 190 ..... T.D. 1,512 ft; drlg.

MEDINA COUNTY

L. C. Stogner's No. 1 Hahn, 330 ft. from E line, 1,320 ft. from S line of survey, P. Wilson Sur. No. 875 .... T.D. 1,236 ft; being comp. a fresh wtr. well in Edwards lime at 1,230-36 ft.

MILAM COUNTY

Ed Clark et al's No. 1 Thomas Graves, 250 ft. from SW and NW lines of Jackson Hall Sur. ..... T.D. 802 ft; standing.
Clark et al's No. 1 Hoppe, 450 ft. from NE line and 450 ft. from SE line of E. Hoppe 60-ac. tract in Juan Jose Acosta Sur. ..... T.D. 520 ft.; standing.

SAN PATRICIO COUNTY

George W. Scruggs' No. 1 Collins, 1,040 ft. from NE line, 700 ft. from SE line of Blk. 36, E. J. McGloin Sur. ..... T.D. 2,756 ft; changing to heavier rig.

STARR COUNTY

B.&B. Oil Co.'s No. 1 Crown Brick & Tile Co., 1,800 ft. S of State Highway No. 4 and 550 ft. from W line of Porcion 87 near La Puerta ..... T.D. 4,560 ft; milling out tools lost in hole.
W. P. Chancellor's No. 1 A Guerra, 26,000 ft. from S line, 2,600 ft. from E line of Share No. 6 of San Jose Grant Sur., NE cor. of county ..... T.D. 1,837 ft; in sand; drlg.
F. R. Cooper's No. 1 J. M. Martinez, 150 ft. to S and E lines of A.B.&M. Sur. No. 135 ..... T.D. 2,680 ft; drlg.
Great Plains Oil Co.'s No. 1 Sanchez, 660 ft. from W line, 330 ft. from S line of SE NW of Sur. No. 344 ... T.D. 2,300 ft.; standing.
Jeffries and Lambeth Drlg. Co.'s No. 1 Starr County Cattle Co., 11,572 ft. from N line, 2,490 ft. from E line of Porcion 89, Sur. jurisdiction Camargo, 8 miles NE from Rio Grande City ..... T.D. 2,500 ft; drlg.
E. H. Stickney's No. 1 H. Gonzalez, 300 ft. from E line, 2,166 ft. from S line of H.E.&W.T. Sur. 339.... T.D. 1,130 ft; drlg.
Sun Oil Co.'s No. 1-B Guerra, 9,677 ft. from SE line, 3,300 ft. from SW line of Share H-14-B Sur., La Cuevitas grant ..... T.D. 2,307 ft; testing.
Sun Oil Co.'s No. 1-C Guerra, 4,861 ft. from NW line, 660 ft. from NE line of Sur. La Sacatosa grant .... T.D. 1,672 ft; drlg.
Goodwain & Yantis' No. 1 Seabury, 150 ft. from S and W lines of Sec. 107, Share No. 1, Porcion No. 107.... T.D. 1,910 ft; drlg.

TRAVIS COUNTY

Franklin et al's No. 1-A Reimers, 1,200 ft. from SE line, 1,600 ft. from most southerly SW line of Sur. No. 35 ..... T.D. 420 ft; csg. stuck.
Holdin's No. 1 D. V. Collins, 6,192 varas from SE line, 10,440 varas from SW line of Santiago de Valle Grant Sur. ..... T.D. 810 ft; standing.

UVALDE COUNTY

Frank A. Brown's No. 1 J. A. Milliken, 1,800 varas from W line which is Sabinal River, and 108 varas from S line of Antonio Cruz Sur. No. 382 ..... T.D. 100 ft; T.A.
Evans & Thompson's No. 1 Farris, 400 ft. from S and W lines of 535-ac. tract near center of John J. Hammond Sur. ..... T.D. 300 ft; changing rigs.
O. A. Payte's No. 1 Riddle, 130 ft. from N line, 1,050 ft. from E line of 150-ac. tract, Blk. 471, Kilgore Sur. ..... T.D. 800 ft; S.D.
John Roberts' No. 1 Kincaid, 4 mi. N of Sabinal ..... T.D. 705 ft; drlg.

WEBB COUNTY

Danvers & Harrison's No. 1 Benavides, 2,490 ft. from S and E lines of Sur. No. 669 ..... Spudded in.
Edwin M. Jones' No. 2 Callaghan, 330 ft. from S and E lines of C.C.S.D.&R.G.N.G. R.R. Sur. No. 1,211.... Rigging up.
Grey Oil Corp.'s No. 1 A. S. Billings, 2,310 ft. from N line, 330 ft. from W line of Blk. 1, C.C.S.D.&R.G. N.G. Sur. No. 13 ..... T.D. 400 ft; drlg.
P. G. Rouse's No. 1 S. M. Withers, 3,000 ft. from E line, 400 ft. from N line of Sur. No. 28 ..... T.D. 1,378 ft; drlg.
Shankle & Roche's No. 1 W. W. Stell, 660 ft. from N and W lines of NW NW of No. 37 Sur., 11 miles N from Mirando City ..... T.D. 3,500 ft; resumed drlg.
Will Ohlhausen's No. 1 Moses Jones, 378 varas from E line, 516 varas from S line of 100-ac. tract in Sur. No. 1,640 ..... T.D. 850 ft.; standing.
Washabaugh & Roberts' No. 1 Bruni, 1,170 ft. from NE line, 150 ft. from NW line of E½ of 160-ac. tract in Sur. 139 ..... Spudded in.

WILLIAMSON COUNTY

Bob Fallin's No. 1 Polzin, 1,000 ft. from N and E lines of Jacob Sapington. NE from Round Rock ..... T.D. 1,855 ft; abd.
R. S. Wilson's No. 1 Ritchey, 1,200 ft. from SE line, 200 ft. from NE line of F. B. Ritchey 98-ac. tract in Simon Miller Sur. ..... T.D. 1,880 ft; drlg. shale.

WILSON COUNTY

Humble Oil & Refining Co.'s No. 1 Hardy, 607 ft. from S line, 466 ft. from E line of Hardy 65-ac. tract in Joseph Reynolds Sur. ..... T.D. 5,026 ft. in Buda.

ZAPATA COUNTY

J. C. Charver's No. 1 Bustamente, 330 ft. from N and E lines of 24-ac. tract in Share 24 of Las Comitas grant ..... T.D. 20 ft; drlg.
Hamilton, Brower & Crow's No. 1 Slator, 2,111 ft. from SW line, 1,980 ft. from SE line of Blk. 1, Subd. of Slator ranch in J. V. Borrego grant ..... T.D. 1,069 ft; standing.
Circle W. Oil Co.'s No. 1 M. Garza est., 623 ft. from NW line and 699 ft. from SW line of Blk. 30, C. A. Douglas Subd. of Charco de la India grant ..... Rigged up; standing.
O. W. Killam's No. 1 A. M. Bruni est., 670 ft. from NE line, 150 ft. from NW line of Blk. 4, Sur. No. 15 .... Spudded in.
Sarah Poppas' No. 1 Juan V. Cueller, Jr., 150 ft. from NE and SE lines of Blk. 3, Sur. 2 of Poppas Subd. of Por. 24 ..... T.D. 800 ft; drlg.
A. C. Savoy et al's No. 1 Flores, 150 ft. from NW line, 206 ft. from NE line of Blk. 3, Share 1 of F. A. Richer Subd. of Porcion No. 36 ..... T.D. 2,404 ft; standing.

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OIL AND REFINING COMPANY

HOUSTON, TEXAS

Producers, Transporters, Refiners and Marketers of Petroleum and Its Products.

Stevens & Brown's No. 1 Alexandro Garcia, 669 ft. from SW line, 660 ft. from NW line of Blk. 6, Stevens & Brown Subd. of W 700 acres, Charco Redondo grant, A. Garcia tr. 16 miles SE of Zapata ..... T.D. 1,250 ft; standing.

ZAVALA COUNTY

Zavala O. & G. Co.'s No. 1 Gates, 1,320 ft. from N line, 1,320 ft. from E line of Hooper & Wade Sur. No. 13 .. T.D. 6,053 ft.; fishing for 3,590 ft. drill stem.

Southwest Texas Proven Areas

Week Ending July 15

CEDAR CREEK—BASTROP COUNTY

Company, well, farm name, section and block— Remarks

Marts & Beavens' No. 1 Orgain, 1,500 ft. from SW line, 200 ft. from NW line of tract in Addison Litton League ..... Spudded in.

HILBIG POOL—BASTROP COUNTY

Humble O. & R. Co.'s No. 5 Wilhelm, 295 ft. from E line of tract and 315 ft. SW of SW cor. of Pierce Wolfensbarger tract ..... T.D. 2,544 ft; comp. 400 bbls. dly.

RIDDLE POOL—BASTROP COUNTY

Floyd Dodson's (and Muckelroy) No. 1 Duran, 45-ac., 300 ft. from NE line, 1,440 ft. from SE line of 100-ac. tract, Flynt Sur. ..... T.D. 2,355 ft; coring.

Marts & Beavens' No. 1-A Riddle (202-ac.) ..... T.D. 2,310 ft; running csg.

Ogden & Reed's No. 1 Talley, 150 ft. from NW line, 1,350 ft. from SW line of John Maxmilian Sur. .... T.D. 2,127 ft; treated with 3 drums acid; standing.

Ogden & Reed's No. 1-A C. L. Riddle, 1,225 varas from NE line, 288 varas from NW line of Maxmillian Sur. ..... T.D. 2,276 ft; treated with 4 drums acid; standing.

PETTUS POOL—BEE COUNTY

Mauldin's No. 4 fee, 420 ft. NE of No. 3, ½ mile S from Pettus townsite ..... Rigging up.

TULETA POOL—BEE COUNTY

Grisham et al's No. 1 Rapp & Hatch, 1,700 ft. from N line, 2,640 ft. from E line, Sec. 12 of Ragsley's Subd. of Uranga grant ..... T.D. 4,393 ft; in sand; set csg.

ECKERT POOL—BEXAR COUNTY

J. F. Harrison's No. 1 F. Gembler, 150 ft. from NW line, 460 ft. from NE line of 88-ac. tract in J. Montez Sur. ..... T.D. 416 ft; standing.

McDaniel & Wood's No. 1 A. C. Gembler, 150 ft. from N and W lines of 40-ac. tract, Gotari Sur. ..... Moving in.

EAST COLE POOL—DUVAL COUNTY

Cole & Wise's No. 1 S. Benavides, 150 ft. from SW and NW lines of Blk. 415, Myrtle E. Hale Subd. of Mariana Arispe grant ..... T.D. 2,700 ft; testing sand 2,697-2,700 ft.

NORTH GOVERNMENT WELLS POOL—DUVAL COUNTY

Central Producers, Inc.'s No. 7 Tuck & Johnson, 330 ft. from S and W lines of SE SW of Sur. No. 42 ..... Rigging up.

Hester Bros.' No. 1 fee, 330 ft. from S and E lines of NE of Sur. No. 47 ..... Rigging up.

Humble O. & R. Co.'s No. 6 Hahl, 330 ft. from W line, 1,650 ft. from S line of E½ of Sur. No. 360 ..... T.D. 2,320 ft; comp. 71 bbls. hrly. on ¾-in. choke.

Humble O. & R. Co.'s No. 7 Hahl, 2,110 ft. from S line, 330 ft. from W line of E½ of Sur. No. 360 .... T.D. 120 ft; set csg.; W.O.C.

Navarro Oil Co.'s No. 15 Hahl, 2,970 ft. from S line, 330 ft. from E line of W½ of Sur. No. 360 ..... T.D. 2,280 ft; drlg. plug.

Navarro Oil Co.'s No. 20 Hahl, 1,650 ft. from S line, 990 ft. from E line of W½ of Sur. No. 360 ..... T.D. 2,288 ft; set csg.

Reynosa Oil Corp.'s No. 1 Duval County Ranch Co., 330 ft. from N and W lines of N½ of SW of Sur. No. 362 ..... T.D. 2,269 ft; set csg.

Reynosa Oil Corp.'s No. 7 Hahl, 330 ft. from N and E lines of N½ of NE Sur. No. 42 ..... T.D. 1,325 ft; drlg.

Southwest Drilling Co.'s No. 10 Wendt, 990 ft. from N and E lines of SE of Sur. No. 43 ..... T.D. 2,271 ft; comp. 60 bbls. hrly. on ⅜-in. choke.

Southwest Drlg. Co.'s No. 11 Wendt, 990 ft. from N and E lines of SW SE Sur. No. 43 ..... T.D. 46 ft; set surface csg.

C. J. Storey's (Wilkins Seacord) No. 3 Lundell, 1,110 ft. from N line, 150 ft. from E line of Sur. No. 48 .. T.D. 2,292 ft; comp. 15,000,000 ft. gas and 150 bbls. oil; est.

Texas Co.'s No. 9 Wendt, 990 ft. from W line, 330 ft. from S line of 122-ac. tract in W. N. Seago Sur. No. 42 ..... T.D. 2,262 ft; comp. est. 3 bbls. hrly. on ¼-in. choke.

SARNOSA POOL—DUVAL COUNTY

Sarnosa Oil Co.'s No. 8 Well, 855 ft. from NW line, 345 ft. from NE line of Sur. No. 130 ..... T.D. 2,424 ft; abd. (also carried as No. 1-A).

Sun Oil Co.'s No. 4 Cano (Cuellar), 741 ft. from NE line, 330 ft. from SE line of E, Sur. No. 576 .... T.D. 2,394 ft; set csg.

PETERS POOL—DUVAL COUNTY

R. F. Duggan's No. 1 Sutherland, 1,807 ft. from E line, 4,186 ft. from S line of Sur. No. 187 ..... T.D. 20,50 ft; drlg.

Shasta Oil Co.'s No. 4 Peters, 990 ft. from E line, 330 ft. from S line of Strip Sur. No. 65 ..... T.D. 2,494 ft; comp. 15 bbls. on gas jet; P.B. to 2,360 ft.

SANDIA POOL—JIM WELLS COUNTY

Crude Oil Royalty Co.'s No. 1 Allen, 150 ft. from N and E lines of Blk. 2, Subd. of Wade ranch ..... T.D. 2,648 ft; standing.

JACOBS POOL—McMULLEN COUNTY

Loma Oil Co.'s No. 13-A Jacob, 1,320 ft. N, 15 deg. E from No. 13-A ..... T.D. 944 ft; running liner.

Longhorn Oil Co.'s No. 2-A C. T. Lark, in E. W. B. Scrugham Sur. ..... T.D. 1,021 ft; recemented csg.

Longhorn Oil Co.'s No. 3-A Lark, 660 ft. S of No. 1-A Lark ..... T.D. 1,033 ft; slopping oil over top of csg.

KING POOL—NUECES COUNTY

John F. Camp's No. 1 King, 150 ft. from N and W lines of E½ of Sec. 29, of Richard King Subd. ..... T.D. 4,941 ft; hard shale.

MATHIS POOL—SAN PATRICIO COUNTY

Jos. W. Scruggs' No. 1 Collins ..... T.D. 2,756 ft.; changed to heavier rig.

LOS OLMOS POOL—STARR COUNTY

Hooks & Weaver's No. 15 Kelsey Bass, 200 ft. from W line, 150 ft. from S line, NW SE Sec. 4, Pors. 75, 76, 77, jurisdiction Camargo ..... T.D. 2,268 ft; abd.

Hooks & Weavers' No. 14-A3 Kelsey Bass, 200 ft. from W line, 200 ft. from S line of E 30 acres of NE SW Sec. 4, Pors. 75, 76, 77, Camargo ..... Drlg. 1,268 ft; abd.

LAUREL POOL—WEBB COUNTY

Cole & Wise's No. 4 Garcia-Villareal ..... T.D. 600 ft; drlg.

Shankie & Newton's No. 1 S. Benavides, 330 ft. from S and E lines of Blk. 13, in No. 2,272 Sur. ..... T.D. 40 ft; set surface csg.; W.O.C.

South Tex. Oil Co.'s No. 9 Laurel, 324 ft. from N line, 1,121 ft. from W line of Blk. 13 ..... Rigging up.

Arthur H. Wray's No. 1 Laurel, 600 ft. from W line, 150 ft. from S line of Blk. 5, Sur. 270 ..... T.D. 1,100 ft; drlg.

MOCA POOL—WEBB COUNTY

Moca Oil Co.'s No. 4 Duval County Ranch Co., 810 ft. from N line, 120 ft. from W line of Blk. 22, Share 3, Zapata County School Land ..... T.D. 1,214 ft.; P.B. to 891 ft.

S.R.C. et al's No. 2 Duval Co. Ranch Co., 330 ft. W of No. 1, 150 ft. from S line of lease, League No. 3 of Zapata County School Land Sur. ..... T.D. 866 ft; going on pump.

S. R. C. Oil Corp.'s No. 3 Duval County Ranch Co., 1,943 ft. from E line, 150 ft. from S line of Blk. 11, League 3, of Zapata County School Land Sur. .. Rigging up.

CHAPMAN POOL—WILLIAMSON COUNTY

Deep Pay Exploration Co.'s No. 1 M. V. Lawrence, 237 ft. from W line, 86 ft. from S line of S. Miller Sur. ..... T.D. 3,056 ft; in Edwards; standing.

ESCOBAS POOL—ZAPATA COUNTY

Texas Co.'s No. 30 Measles, 2,038 ft. from SE line, 18,270 ft. from SW line of Cerrito Blanco grant ..... T.D. 1,195 ft; comp. 50 bbls. dly.

Texas Co.'s No. 31 Measles, 1,576 ft. from SE line, 18,556 ft. from SW line of Cerrito Blanco Grant Sur. Spudded in.

MIRANDO VALLEY POOL—ZAPATA COUNTY

J. W. Edwards' No. 1 R. Hinnant, 150 ft. from SE lines of Blk. 8, Sur. No. 116 ..... T.D. 1,800 ft; S.D. for wtr.

Wildcat Operations in Louisiana-Arkansas

(Continued from Page 39)

CONVERSE DISTRICT

R. L. Gay's No. 1-B Bowman-Hicks, 330 ft. N and E, SW cor. SW NE Section 22-9-13 ..... Rig up.

Lambert et al's No. 1 Edwards, 300 ft. S and E, NW cor. SW NW Sec. 29-9-13 ..... D.S.test 2,045-2,328 ft; S.W. and muc; W.O.

Joe Modisette's No. 3 Frost Lbr. Industries, 330 ft. S and E, NW cor. NE SW Sec. 16-9-13 ..... Coring 3,040 ft.

E. M. Self's No. 1 G. I. Paul, 330 ft. N and W, SE cor. NE SW Sec. 9-9-13 ..... Derrick.

Arkansas

COLUMBIA COUNTY

C. W. Alworth et al's No. 1 W. D. King, SW cor. SE SW Sec. 16-17-20 ..... Drlg. 1,310 ft.

JEFFERSON COUNTY

J. E. Elliott's No. 1 B. V. Nevin, 440 ft. N and E, SW cor. SW NW Sec. 26-4-10 ..... Derrick.

HEMPSTEAD COUNTY

Kentucky O. & G. Co.'s No. 1 Leslie, NW cor. SW NW Sec. 21-9-26 ..... Derrick.

LINCOLN COUNTY

John B. Watkins, tr.'s No. 2 McGehee Planting Co., 270 ft. W, 420 ft. S, NE cor. NE SW Sec. 5-8-7 ..... Began drlg. June 30; coring 1,155 ft.

LITTLE RIVER COUNTY

K. E. and W. N. Merren's No. 1 Taafe, Sec. 25-12-32, 330 ft. N and W, SE cor. NW NW ..... Coring 2,900 ft.

LAFAYETTE COUNTY

Geo. W. Harper's No. 1 Reed-Bodcaw, NW cor. Sec. 16-15-22 ..... Set 10-in. 40 ft.

MILLER COUNTY

J. T. Humphrey's No. 1 Grace, C SW SW Sec. 9-15-27... Cmtd. 10-in. 206 ft.

Tarkington et al's No. 1 Gibson, 1,980 ft. N, 660 ft. E, SW cor. Sec. 30-18-27 ..... Rigging up.

UNION COUNTY

E. R. Henderson's No. 1 Snyder, 400 ft. N, 660 ft. E, SW cor. NE SE Sec. 2-19-15 ..... Began drlg. July 4; cmtd. 12½-in. 164 ft; drlg. 800 ft.

NEVADA COUNTY

Longoria et al's No. 1 Dick Gulley heirs, Sec. 2-12-20.... Began drlg. July 5 and S.D.

Mississippi

JONES COUNTY

Snow-Black Pet. Co.'s No. 1 Watson, 600 ft. W, 210 ft. S, center, Sec. 24-7-12 ..... Drlg. sandy shale 1,850 ft.

LAMAR COUNTY

Lamar Oil Co.'s No. 1 Scott, NE NE Sec. 18-2n-14..... Drlg. marl 1,480 ft.

WALTHALL COUNTY

Mutual O. & G. Co.'s No. 1 Boyd, Sec. 24-2n-9e, SW cor. SW SE ..... Derrick pattern.

WARREN COUNTY

Kistler & Stivers' No. 1 Blakely est., 1,215 ft. NE Blakely Station, Sec. 15-17-5 ..... Cmtd. 12½-in. 316 ft; drlg. 2,620 ft.

Louisiana-Arkansas Proven Areas

North Louisiana

CADDO—BETHANY

Company, well, farm name, section and block—	Remarks:
Tom Collins Pet. Co.'s No. 1 Gill & Lipscomb, 660 ft. N, 1,506 ft. E, SW cor. Sec 1-16-16	Derrick.

CADDO PARISH—BLANCHARD

Nick Barbare's No. 2 P. A. Sharpe, 330 ft. S and W, NE cor. NE SE Sec. 9-18-16 ..... Began drlg. July 12; cmtd. 10-in. 110 ft.

Louana O. & G. Co.'s No. 2 Sharp, Sec. 10-18-16, 660 ft. S and W, NE cor. NW ..... Drlg. 1,760 ft.

CADDO—RODESSA

Ark. La. P. L. Co.'s No. 1 Williams & Windham, Sec. 4-22-16, 560 ft. S, 660 ft. E, NW cor. NE NW ..... Cmtd. 9-in. 3,066 ft.

United Gas Public Service Co.'s No. 1 Festeruan, Sec. 23-23-16, 1,980 ft. N, 1,320 ft. E, SW cor. ..... Cmtd. 12½-in. 380 ft; drlg. 2,087 ft.

DESOTO PARISH

Tom McKinney et al's No. 1 J. M. Nabors, 330 ft. N and E, SW cor. SE SE Sec. 26-12-12 ..... Rig up.

MOREHOUSE PARISH

United Gas Public Service Co.'s No. 29 Crossett Lbr. Co., 661 ft. E, 660 ft. N, SW cor. SW SW Sec. 17-22-5 ..... Derrick.

United Gas Public Service Co.'s No. 30 Crossett, Sec. 25-22-4e ..... Began drlg. July 8; cmtd. 12½-in. 161 ft.

United Gas Public Service Co.'s No. 2 Patton, 3,375 ft. S, 2,917 ft. E, NW cor. Sec. 12-20-11 ..... Drlg. 3,162 ft.

RED RIVER PARISH

E. M. Thompson's No. 1 T. J. Crichton, SW SE Sec. 17-13-10 ..... Began drlg. July 5; cmtd. 10-in. csg. 40 ft; drlg. 820 ft.

SABINE PARISH—ZWOLLE

J. C. Chandler's No. 1 Rains, SW cor. NW Sec. 14-7-11 Rigging up.

Crescent Drlg. Co.'s No. 1 Billbray, 330 ft. N and W, SE cor. SE SW Sec. 29-8-11 ..... Began drlg. July 8; cmtd. 10-in. 40 ft; coring 2,258 ft.

Dyer et al's No. 1 McCollister, 330 ft. S and E, NW cor. SW NE Sec. 24-7-12 ..... Derrick.

T. E. Kelly's No. 1 McClanahan, 1,000 ft. S, 330 ft. E, NW cor. SW NW Sec. 36-8-11 ..... Derrick pattern

H. C. Maulding's No. 1 DeLatin, Sec. 3-7-11..... Drlg. black shale 2,200 ft.

Ben Merritt et al's No. 1 L. A. Cook, 336 ft. N, 333 ft. W, SE cor. Sec. 34-8-11 ..... W.O.S.R.; 1,000 ft. oil in hole; T. D. 2,560 ft.

C. H. Tuttle's No. 4 Byrd, 800 ft. S, 920 ft. E, NW cor. NW NW Sec. 7-7-10 ..... Derrick.

Mississippi

HINDS COUNTY

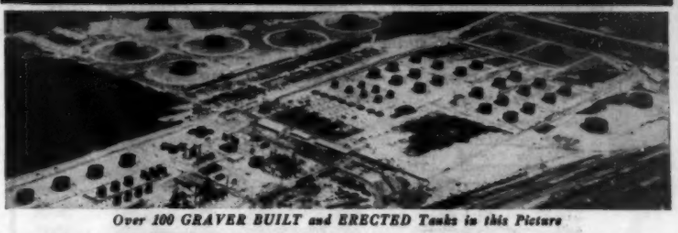
Meredith Trading Co., Inc.'s No. 1 Crane-Lawrence, Sec. 23-6n-1e, 1,178 ft. S, 313 ft. W, NE cor. NW SW ..... Began drlg. June 23; 10-in. 752 ft; drlg. 1,650 ft.

RANKIN COUNTY

J. A. Alexander, tr.'s No. 1 Love Pet. Co., 660 ft. W, 240 ft. S, NE cor. NW NE Sec. 1-5-1e ..... Rig up.

Muse & Muse's No. 1 Carlton, Sec. 13-5n-1e, 650 ft. E, 725 ft. N, SW cor. ..... Cmtd. 10-in. 752 ft.; drlg.

GRAVER



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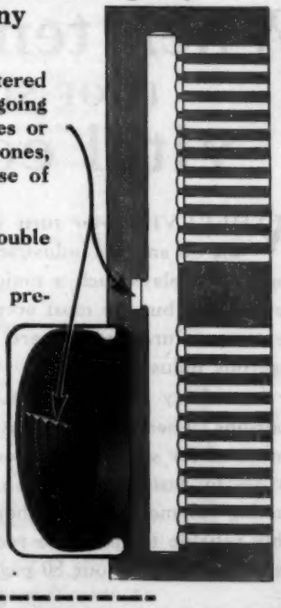

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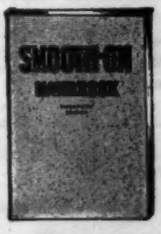

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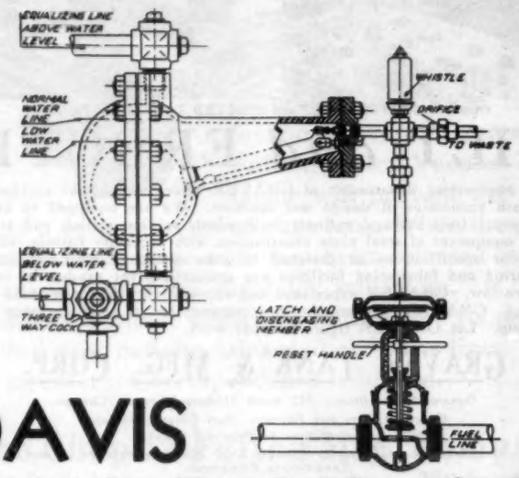

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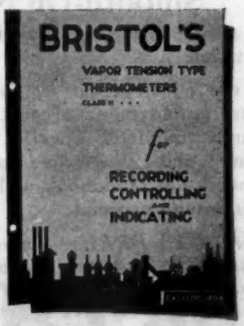

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Gulf Coast Fields

(Continued from Page 41)

lease, agreeing to pay $1,500 an acre out of oil. An option also was taken for another 10-acre tract on the same basis. A well is to be drilled there immediately.

Wharton County

In the Garwood district of southern Wharton County, Plymouth Oil Co. is preparing to deepen its No. 1 Ream, discovery oil producer. This well was completed the latter part of May as a 400-bbl. producer in sand at 6,203 feet but it since has gone to water and efforts to correct it have been unsuccessful. This company has made location for a second test, No. 1 Broussard, located west of the first well. Humble Oil & Refining Co.'s No. 1-B Powell, diagonal northwest offset to the Plymouth discovery well, is drilling around 1,100 feet.

Thompson Field

Cullen & West extended production of the Thompson Field the past week with the completion of their No. 3 Whitemore, which came in flowing 57 bbls. per hour through a three-eighths inch choke from sand at 5,398 feet. Gulf Production Co.'s No. 2 Hammerstram, a northeastward extension of the same field, came in flowing 34 bbls. an hour through a three-eighths inch choke from sand at 5,424 feet.

Sweet Lake

At Sweet Lake, Cameron Parish, Pure Oil Co.'s No. 1 Yount Lee Oil Co. has been completed flowing 57 bbls. an hour through a three-eighths inch choke with one joint of screen set in sand at 7,350 feet. The well originally was drilled to a total depth of 8,070 feet where it went into heaving shale. It was plugged to 7,210 feet and sidetracked to its present depth.

Conroe Completions

Ten new producers were completed at Conroe but all were within proven limits of the field. Texas Co. has abandoned its No. 14 Rhodes after failing to pull stuck drill pipe. This well blew out several months ago while standing with casing cemented to test sand. The rig and derrick were lost but the gas was killed successfully and since then the test has been rigged up again, but in drilling plug drill stem was twisted off.

Hankamer Area

Gulf Production Co. has rigged up for a second test on the Crowe & Jacobs tract, H.&T.C. Survey, Section 21, located 3,000 feet east of the Hankamer Field, southern Liberty County. The first test, same section, recently was abandoned at 6,756 feet after deepening from a sand at 4,921 feet in which a short-lived, small producer was completed.

At Hockley

At Hockley, Harris County, John Deering and associates have location for No. 4 Warren after having abandoned No. 3 Warren as dry at 2,700 feet. These tests are on the northwest side of the dome, where the same operators in their No. 2 Warren early this year completed a 300-bbl. well in sand at 2,426 feet. That well still is pumping around 50 bbls. daily, holding up longer than any of the three other wells which have been completed on the dome.

Batson Dome

Danciger Oil & Refining Co.'s No. 1 Hooks, flank sand test on the south side of the Batson Dome, Hardin County, tested salt water in sand at 4,725 feet. Production so far at Batson, which is one of the oldest salt dome fields on the coast, has been from shallow sands and cap rock overlying the salt.

Iowa Field

At Iowa, on the Calcasieu-Jefferson Davis Parish line, Louisiana, Shell Petroleum Corp.'s No. 4 Heyd, which blew out a couple of weeks ago and which since then has been out of control, caught fire the past week and at latest report still was burning. The gas in coming from around the outside of the casing and the hole has cratered some.

JERGUSON

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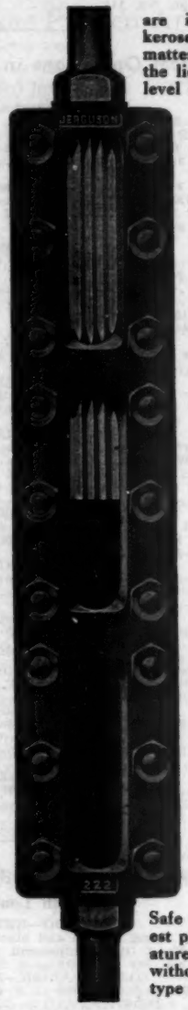

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MOUNT PLEASANT FIELD OF CENTRAL MICHIGAN

Compiled by The Oil and Gas Journal

LOCATION OF FIELD

Approved name and geographic location.

The Mount Pleasant Field proper is located in the central section of the lower peninsula of Michigan about 150 miles north of the south state line, 100 miles east of the Lake Michigan shoreline at Muskegon and 50 miles west of Lake Huron at Saginaw. It includes six distinct oil and gas producing areas, some on either side of the boundary line between Isabella and Midland Counties, in addition to the Clare County natural gas area located directly north of Isabella County. The original pool opened in February, 1928, includes about 5,000 acres proved in Chippewa Township, Isabella County, and Greendale Township, Midland County. This includes what is known as the East Extension, a section developed in 1931 along M-20, one of the principal east and west state trunk lines. The field also includes about 2,500 acres of proved gas area in Broomfield Township, Isabella County, located 14 miles west of the original oil pool, about 3,000 acres in the Vernon Township Pool northeast of the main field, 640 acres in the so-called Leaton Pool and 3,000 acres in the new Porter Township Pool located about 10 miles southeast of the original pool.

Principal cities and towns in and near the field.

Mount Pleasant, a city of about 5,000 inhabitants, and Midland, a city of 8,000 population, are the largest communities near the field. The former is located 7 miles west of the main pool and the latter about 12 miles east of the East Extension, or the east edge of production. Alma, St. Louis, Breckenridge, Wheeler and Hemlock are a succession of small cities and villages lying south of the field and along M-46, another important east and west state trunk line connecting Muskegon and Saginaw. The village of Clare is located north of Clare gas wells about 3 miles.

Railroads serving area.

The Pere Marquette, a branch of the Chesapeake & Ohio system, and the Ann Arbor, a part of the Wabash system.

Character of roads.

Main roads leading to Mount Pleasant from the north, south and east are paved with concrete. A new pavement leads from Mount Pleasant eastward to the oil field. Through the field, state and county roads are graveled. Sand roads have been built and maintained by operators leading to their wells.

Type of country.

The field covers flat, sandy or light loam land, most of it too poor for successful farming since it was cut over for white pine and other timber in by-gone days. The new Porter Pool extends southeast into fertile farming country, still flat and traversed by several small rivers. There is some farming land in the Vernon area also.

Hotels.

There are two hotels in Mount Pleasant, the Park with about 100 rooms and the Bennett affording about 40 rooms.

Schools and churches.

There has been little congestion of schools or churches since the influx of oil people. One or two new and modern brick schools have been erected in the heart of the field to accommodate oil employes' children.

Domestic water supply.

City water plants both at Mount Pleasant and Midland are modern and adequate for all needs. Oil companies have drilled their own wells and established their own water systems in the field. Individual wells have been drilled for families living on leases in the field.

Electric power and gas companies.

The Consumers Power Co., the largest public utility in Michigan, supplies Mount Pleasant and vicinity with light and power. The same company supplies Midland and other communities with gas, while the Gas Corp. of Michigan, a subsidiary of the Federated Utilities Corp., supplies natural gas to Mount Pleasant and Clare.

Trucking and hauling facilities.

Several trucking companies operate throughout the field in addition to company trucks maintained by the principal operators.

Supply houses.

Nine supply houses, including six nationally known concerns handling tools, drilling equipment and tanks have stores in Mount Pleasant. One local tool company is located in the field.

General remarks.

Many of the tool dressers, drillers and others engaged in various activities in connection with the field first came to Michigan when the Muskegon Field was opened in December, 1927, and have since moved to Mount Pleasant.

PIPE LINES

General.

There are five pipe line operators in the field, the principal one being the Pure Oil Pipe Line Co. with a 40-mile 8-inch main line extending to boat loading docks and a storage tank farm at Bay City, and many miles of gathering lines, including a new 7-mile 6-inch line to the Porter Pool connecting with a similar 4-mile line to the field. The Simrall Pipe Line Co. transports crude from the field 8 miles to the Roosevelt refinery in Mount Pleasant. The Producers Pipe Line Co. operates 9 miles of 4-inch line from the East Pool to North Bradley and about 10 miles of 2 and 3-inch gathering lines. The Wellman Oil Co. has several miles of line and loads at Leaton. The Peerless Oil Co. has a 15-mile 4-inch line from the field to St. Louis loading racks. The Gas Corp. of Michigan has a small natural gas line between Mount Pleasant and Clare, while the Consumers Power Co. operates an 8-inch line 50 miles long from the Broomfield gas pool to Saginaw, a city of 80,000 population, which soon may be served with natural gas. The line to date has supplied natural gas to Midland residents and for the Consumers company's steam plant at Zilwaukee, near Saginaw. The Michigan Natural Gas Corp. is engaged in surveying for a 157-mile line to carry natural gas to Saginaw, Bay City, Flint and Pontiac. It is estimated the line will cost more than $3,000,000. A system of 20, 12 and 8-inch line will be laid.

Refineries.

There are only two operating refineries close to the field, the Roosevelt Refining Co.'s 3,000-bbl. plant in Mount Pleasant and the Pure Oil Co.'s 4,000-bbl. plant in Midland, although more than half the crude run by the Old Dutch Refining Co. of Muskegon, in its 3,000-bbl. plant and by the Naph-Sol Refining Co.'s 2,500-bbl. plant, also in Muskegon, comes from Mount Pleasant wells. The Peerless Oil Co. operates a small plant in Big Rapids, Mich., between Mount Pleasant and Muskegon. It has a capacity of several hundred barrels a day.

Gasoline plants.

There is one small casinghead gasoline plant moved to Mount Pleasant from Muskegon where it was first set up in Michigan. It is operated by the Bell Gasoline Corp., a Muskegon company.

GEOLOGICAL DATA

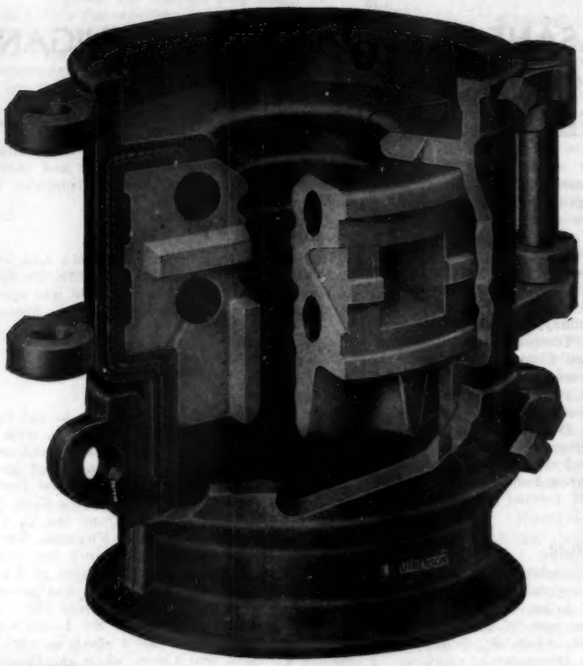
Virtually all of the oil and some of the natural gas in the Mount Pleasant Field has been encountered in the Dundee limestone, a middle Devonian formation found at depths ranging from 3,300 to 3,800 feet below the surface depending on the well's location with respect to the general Michigan formation.

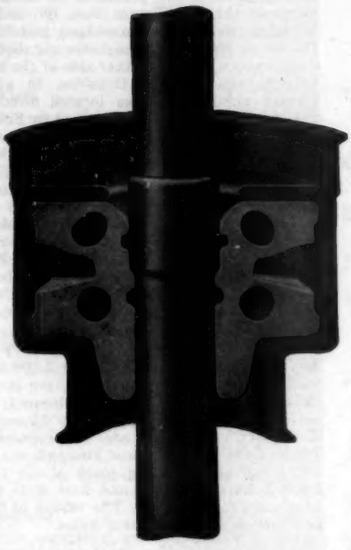
The entire lower peninsula of Michigan is underlaid with strata of rocks in the general shape of a platter, the east edge of which extends to Chatham, Ontario, a Canadian oil producing center, and the west edge of which lies beneath Lake Michigan somewhere between Muskegon and Milwaukee.

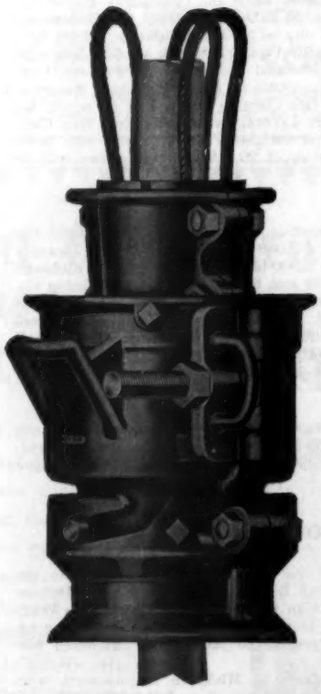
Folding of the rocks in this huge platter-shaped structure has formed traps for the oil beneath a series of mounds such as have been discovered in the vicinity of Mount Pleasant. At Muskegon the Dundee lies at about 2,000 feet while at Saginaw, 40 miles east of Mount Pleasant, the general trend is upward from the center of the state.

One well produced oil from the upper Traverse limestone encountered at about 3,100 feet in the Mount Pleasant Field and at 1,600 to 1,700 feet in the Muskegon Field. This is also a middle Devonian formation of great irregularity. Mount Pleasant wells usually strike a show of oil in the Traverse

(Continued on Next Page)







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GUIBERSON

BETTER BE SAFE THAN SORRY

SERVICE ON NEW FIELDS

Mount Pleasant Field of Central Michigan

(Continued from Preceding Page)

but only one of more than 400 wells made enough at this depth for commercial purposes.

Almost all of the dry gas supply in the central Michigan Field has been found in a gas sand just above the Marshall, a Mississippian formation, encountered at 1,350 to 1,500 feet in Broomfield Township, Clare County, and other areas.

There is 200 to 300 feet of Dundee limestone before the drill runs into the Detroit River, or upper Monroe formation, a dolomite in the lower Devonian. Pay sand in the Dundee formation, Michigan's greatest producing stratum, ranges from 1 to 15 feet thick in the Mount Pleasant Field. First pay is struck at about 30 feet in in the old field and at about 20 feet in the limestone in all other sections.

Porosity does not exceed 30 per cent. The regional dip varies greatly in different sections from 40 feet to the mile in a northeasterly direction from the old field to as high as 150 feet to the mile in a southwesterly direction. The general trend of production to date has followed a northwest-southeast line from the original field.

The entire state of Michigan is covered to a depth of from 250 to as deep as 1,300 feet with glacial drift brought down from the north during the Pleistocene age and deposited upon the platter. Near the rims it is but 225 feet thick, but at a point near Cadillac in central part of the lower peninsula it is said to be 1,300 feet thick. This is the best place in Michigan to use rotary drilling tools, the cable tool method being preferred everywhere else.

The principal and most reliable marker in Mount Pleasant drilling for oil or gas production in the Dundee is the Marshall. After casing off the Marshall brines drilling progresses much more rapidly to the Dundee.

DEVELOPMENT

Discovery of the field.

The Pure Oil Co. drilled the discovery well on the Root farm in Section 17, Greendale Township, Midland County, bringing it in as a small oil producer in February, 1928, about two months after the discovery well of the Muskegon Field was brought in by the Muskegon Oil Corp. on December 15, 1927.

General.

Development at Mount Pleasant proceeded in a much more orderly and scientific manner from the start because the field was located where the land was in 20, 40, 80, 160 or more acres to each tract. The Muskegon Field included many plots of one acre or less. The Pure Oil Co. obtained some advance information on the possibility of oil production in this section of Michigan through old records of Dow Chemical Co. wells in which shows of oil had been encountered while the company was drilling for brine. The comparatively shallow depth of most of the Dow wells accounts for the fact that more oil was not encountered earlier. After three successful wells, ranging from 40 to 200 bbls. a day in initial production, had been drilled by the Pure in Section 17 of Greendale Township, several independent operating concerns were formed to prospect in every direction from the discovery well. The Chippewa Oil & Gas Co. of Mount Pleasant was the first to open up new and larger production across the township and county line in Chippewa Township, Isabella County. Several wells ranging up to 1,500 bbls. a day initial were drilled here a short distance northwest of the Pure wells. For two years development was confined principally to the original field before wildcatters began to branch out in search of new pools. The result was the discovery of the Vernon Township oil and gas pool with several wells making as high as 4,000,000 feet of gas and more than 2,000 bbls. of oil daily. After the Muskegon Field had reached its peak of 20,000 bbls. a day in 1929 and started to decline in 1930, the Mount Pleasant Field began to develop more rapidly. In 1931 it became the undisputed leader of Michigan fields. The Kalamazoo Improvement Co. brought in its George Hornick well in Section 15, Greendale Township, as a 1,000-bbl. initial producer opening the East Extension. This was followed by the opening of the East Pool, 3 miles east of the old field on M-20, with the completion of W. L. McClanahan's No. 1 A. J. Struble, in Section 10, Greendale Township, after a disastrous fire in which 10 persons lost their lives. Twenty producers, ranging from 1,000 to 5,000 bbls., were completed before the close of the year. The forerunner of the outstanding new development of the first half of 1933 was the Pacific Oil & Gas Co.'s No. 1 Otway, located in Section 26 of Porter Township, Midland County, which came in with an initial of 50 to 75 bbls. in the Dundee but quickly dropped to 15 bbls. Several offsets were drilled, but they missed the trend which has proved one of the most important developments of the past two months. No. 1 Otway was completed in September, 1931, nearly two years ago. The most important extension of 1932 was the Pure Oil Co.'s No. 1 Mattie Yost and others, Section 35, Greendale Township, Midland County, located about 4 miles southeast of the original producing area. It came in with an initial of 1,127 bbls. a day early in December. Daily production reached a peak of 18,000 to 24,000 bbls. a day for an average of about 20,000 bbls. a day in 1932. More than twice as many new wells were brought in as in 1931. Many new completions averaging more than 1,000 bbls. a day initial were brought in in the East Pool which was fairly well defined before the close of the year. From a percentage of proration in early 1932 enforced by the Pure Oil Pipe Line, developments expanded until all wells were allowed to produce at capacity. While other fields suffered under stricter proration in early months of 1933, development continued unchecked in Michigan with prices of 75 cents to $1 a barrel prevailing. Nearly 100 completions, about 75 of them successful oil wells and four of them commercial gas wells, had been reported two weeks before the close of the first half of 1933. This compared with 41 producing oil wells and one gasser drilled during the corresponding period in 1932. A new record of 27 completions in a single month was set during May, although the initial production was less than April, 1933, when one 5,000-bbl. well boosted the total to 9,970 bbls. initial daily flow for 17 wells. The outlook for the last half of 1933 is better than for any corresponding period since the field was opened.

Proration.

No more than partial proration, enforced by the principal purchasers of crude oil during periods of flush production, has been experienced at any time in any Michigan field. The Dixie Oil Co. enforced 25 per cent proration in Muskegon for a short time in 1928 before pipe line facilities were sufficient to take full production. The Pure Oil Co. took 50 per cent of old producers but only 25 per cent of new wells during the early part of 1932. In each case independent pipe lines offered to take full production at a premium, eventually reopening all wells for flush production.

DRILLING CONDITIONS

Drilling water.

Most operators have drilled water wells on their leases for drilling purposes. Some near the banks of the Chippewa River in the old field have been saved this procedure. The Pine River flows through the Porter Field now being developed and will be available for drilling water.

Boiler fuel.

Virtually all wells in the proved sections of the field use natural gas or cheap fuel oil for boiler fuel. Coal or fuel oil is used on wildcat and semiwildcat locations although there are a few steam rigs in the field.

How wells are drilled.

Most of the wells in the Mount Pleasant Field have been drilled by contractors. Some of the larger companies, such as the Shell Petroleum Corp., have made drilling agreements with independent operators or contractors to develop their acreage. The Pure Oil Co., largest lease holder and operator in the field, has a production department, but contracts its wells.

Cost of drilling.

When the field was first opened in 1928 it was estimated that a Dundee oil well cost about $25,000. Since then the cost has been reduced to an average of $18,000, with contractors taking work as low as $1.60 to $1.75 a foot with everything furnished. The wells vary in depth from 3,300 to 3,800 feet. Marshall gas wells to a depth of about 1,400 feet are correspondingly low in cost.

Drilling time.

Some wells have been drilled in 30 days after spudding, but the average would range from 40 to 50 days.

(Continued on Next Page)

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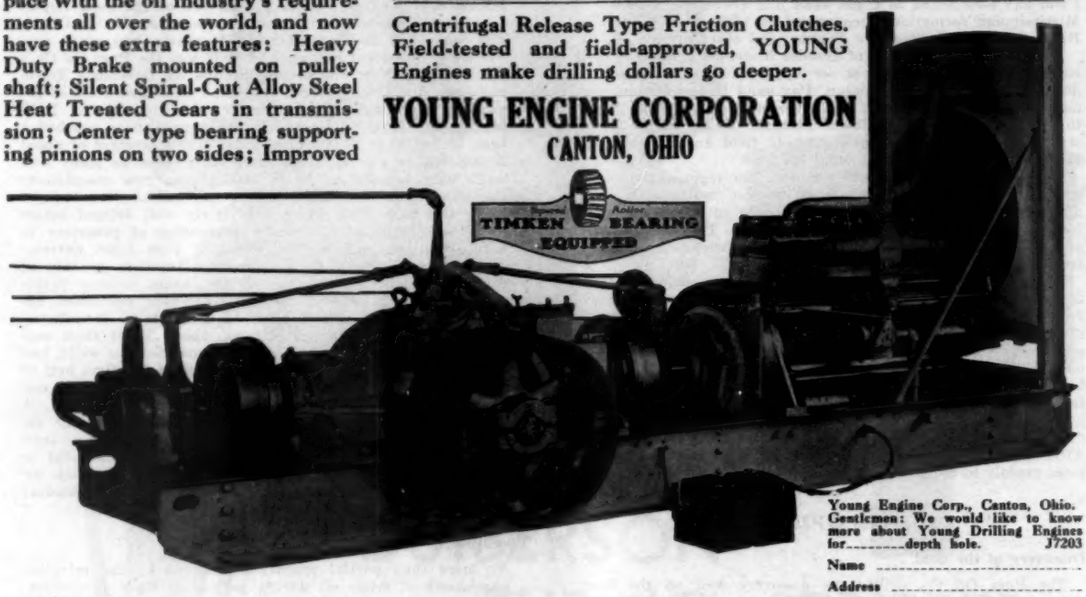
MODEL	MOTOR					GEAR RATIO		
	Cyls.	Bore	Stroke	H.P.	Speed	Forward High	Forward Low	Reverse
81-X	6	4½	4¾	85	1600	4.2:1		4.2:1
95-S	6	4¾	6	110	1600	4.2:1		4.2:1
95-RB	6	4¾	6	110	1600	4.2:1	7.3:1	4.2:1
125-SB	6	5½	6	145	1600	4.2:1		4.2:1
128-RB	6	5½	6	145	1600	4.2:1	7.3:1	4.2:1
130-RB	6	6	7¼	150	1100	3.6:1	6.2:1	3.6:1

Centrifugal Release Type Friction Clutches. Field-tested and field-approved, YOUNG Engines make drilling dollars go deeper.

YOUNG ENGINE CORPORATION
CANTON, OHIO



Young Engine Corp., Canton, Ohio.
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The OIL and GAS JOURNAL

PRODUCING REFINING PIPELINE ENGINEERING MARKETING

SERVICE ON NEW FIELDS

Mount Pleasant Field of Central Michigan

(Continued from Preceding Page)

Type of drilling equipment.

Standard cable tool rigs with steel derricks predominate, although one or two rotary rigs are used occasionally to set drive pipe through deep sand upon bed rock. Forty to 50 horsepower gas engines are used for power. Rotary tools can be used successfully only where glacial drift is 500 feet or more thick. In this case it is easier to set casing on bedrock by the rotary method. Few wildcats have been drilled under such circumstances. Whether the hole is drilled with cable tools or rotary outfit coring the producing formation is common practice.

Electric power.

All electricity used in the field is furnished by the Consumers Power Co.

Derricks.

When the field was first opened a number of wooden derricks were erected. Later the 84-foot steel derrick for standard cable tool drilling was generally accepted.

Casing.

The usual drive pipe, or outer casing, is 10-inch, ranging from 250 to 450 feet deep. Then a string of 8¼-inch, 750 to 1,000 feet long, is set. A string of 6⅝-inch is used to shut off the "big water" encountered in the Marshall formation. This usually extends from 1,250 to 1,450 feet. The last string before drilling into the Dundee is 5 3/16-inch, ranging from 3,350 to 3,750 feet in length, depending on whether the well is located on the south or north edge of the field. Two-inch tubing is used for pumping wells. A few tests with smaller strings of casing have been made in dry gas wells meant only for the Michigan sand just above the Marshall. Although some strings of casing are cemented at the bottom of the hole, most of them are mudded and a few set on bottom hole packers, although this last method is discouraged as unsatisfactory to the state as well as to the operator.

Gas hazards.

Although there have been a few bad fires resulting from unexpected flows of gas and oil in semiwildcat tests where the depth of pay sands has not been exactly known, there is comparatively little need for blowout preventers because of the low gas pressure compared with the volume of oil. Most operators drill through an oil saver and control head with a few gate valves installed.

Slush pits.

Two slush pits are required, one about 30 by 30 feet square and 4 or 5 feet deep, and another 10 by 15 feet in size and the same depth for mud to be saved for plugging.

Method of production.

Chokes are used to maintain back pressure of 40 to 75 pounds on some wells, although most of them are allowed to flow wide open and without restriction.

Gas-oil ratio.

The gas-oil ratio seldom exceeds 1,000 cubic feet per barrel. This ratio, highest in the field, has been discovered in the prolific East Extension. The ratio in the new Porter Township area is about 200 cubic feet to the barrel.

Character of the oil.

Gravity runs from 38 to 42 A.P.I. This is slightly less than when the field was first opened with 44 gravity oil. An analysis of the oil shows the following content: Laboratory test, gravity 40 to 41; gasoline content, 35 per cent; kerosene, 10 per cent; gas oil, 10 per cent; distillates, 10 per cent; fuel oil, 33 per cent; loss, 2 per cent. In a refinery test gasoline content shows 33 per cent and loss as high as 4 per cent.

Separators and tankage.

Separators are used on many wells although gas pressures and flow have been much less than similar-sized oil wells in the Muskegon Field. Field storage tanks vary from 100 to 1,000 bbls. in capacity. As many as six 1,000-bbl. tanks have been set up at a single well.

Rock pressures.

Rock pressures range about 1,200 pounds to the square inch.

Salt water conditions.

Some wells in the East Extension, some in Vernon Township but few in the old main section or the new Porter region produce salt water. A ratio of 10 bbls. of water to 100 bbls. of oil is high in the East Extension. Vernon Township wells run as low as 50 bbls. of oil in 1,000 bbls. of fluid.

Are wells shot?

Comparatively few wells in this field have been shot except when they are to be treated with acid. Wells originally making 100 to 200 bbls. have been increased to more than 1,000 bbls. a day with treatment. Old wells in the Muskegon Field have been boosted from one or two to as high as 75 bbls. a day with a single treatment. From 500 to 1,000 gallons of acid now is used for a treatment in the Mount Pleasant area.

Artificial lifting conditions.

Most wells in the Mount Pleasant Field have to be placed on the pump within a short time after completion as gas flow is seldom sufficient to keep them producing more than a month or so. In a few cases early wells produced as long as a year without pumping.

GENERAL CONDITIONS

Principal leasholders.

Pure Oil Co., Shell Petroleum Co., Chippewa Oil & Gas Co., Stork Oil Co., Gordon Oil Co., Columbia Oil & Gas Co., Standard Oil & Gas Co., Wittmer Oil & Gas Co., Mellon-Pollock Oil Co., Ohio Producing & Refining Co., W. L. McClanahan, Inc., Old Dutch Oil & Gas Co., Talbot Oil Co., Pacific Oil & Gas Co., G-Lee-P Oil Co., Theodore Oil Co., Michigan Gas & Oil Co., Sun Oil Co., Meridian Oil & Gas Co., Mammoth Petroleum Co., Smith Petroleum Co., Geneva Oil Co., L. G. Thompson and Charles W. Teater.

Locations and wells to acre.

As virtually all wells in the Mount Pleasant Field are located on regular tracts of land ranging from 20 to 40, 60, 80 and larger acreages development has been standardized from the beginning. Wells have been located about 330 feet from each side of the corner of a 40-acre lease and similarly throughout making not more than one well to each 10 acres.

Operating companies.

There are about 50 active operating companies in the Mount Pleasant Field with some individual wildcatters in addition to this drilling on outlying acreage.

Gasoline plants.

There is a single casinghead gasoline plant operated by the Bell Gasoline Co., formerly of Muskegon. It has a capacity of between 2,000,000 and 3,000,000 cubic feet a day.

Natural gas test.

Natural gas from the producing sand just above the Marshall, sometimes called the Michigan formation, is free from sulphur and tests as follows: Methane, 93.8 per cent; ethane, 3.8 per cent; propane, .52 per cent; butane, .44 per cent; pentane and heavier components, .14 per cent; carbon dioxide, .3 per cent; air, 1 per cent. It has a B.t.u. content of 1,046.

Gasoline—how shipped.

Gasoline both from the Roosevelt refinery in Mount Pleasant and from the Pure Oil Co. plant in Midland is shipped out principally by tank car, although the Roosevelt company does some marketing by tank car motor truck.

Tanks.

The Pure Oil Co. maintains the largest tank storage of any concern in the field. It has seven 55,000-barrel tanks in Section 17, Greendale Township, Midland County, tank farm within the field, and eight similar tanks at its loading dock in Bay City. The Talbot Oil Co. also maintains one 80,000-bbl. tank in the old field. Other tankage is confined to tanks on the various leases varying from 100 to 6,000 bbls.

Total production.

Mount Pleasant has produced about 15,000,000 bbls. since it was brought in five years ago. It had reached a total of about 6,000,000 bbls. before the close of 1931, added 6,000,000 in 1932 and has produced at the rate of 13,000 to 15,000 bbls. a day during the first six months of 1933.

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-to Keep tight

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DOWELL INCORPORATED
MIDLAND, MICHIGAN

Summary of Operations in All Fields for June, 1933

Summary of Completed Work

Field—	Comp.	Prod.	Dry	Gas
Eastern	95	191	17	12
Central Ohio	26	28	8	15
Lima	9	197	0	4
Indiana	15	65	4	5
Michigan	13	2,925	2	0
Kentucky	18	327	*10	0
Illinois	2	10	1	0
Kansas	29	8,202	9	2
Oklahoma	83	14,000	28	6
North Central Texas	44	2,533	25	9
East Texas	106	6,707	16	0
West Texas	16	3,217	5	0
Texas Panhandle	10	4,914	0	2
Southwest Texas	74	11,923	55	3
Texas Gulf	83	86,720	22	1
Louisiana Gulf	15	8,245	30	1
North Louisiana	24	90	17	4
Colorado	3	0	3	0
Arkansas	6	0	6	0
Mississippi	4	0	3	1
New Mexico	1	129	0	0
Wyoming	2	15	1	0
Montana	2	584	0	0
Utah	2	2	1	0
Total June	687	151,024	263	68
Total May	752	205,839	268	60
Difference	65	54,815	5	8

Summary of Work Under Way

Field—	Rigs	Drlg.	Ttl.
Eastern	49	157	206
Central Ohio	14	75	89
Lima	2	26	28
Indiana	2	53	55
Michigan	44	88	132
Kentucky	4	52	56
Illinois			
Kansas	20	85	105
Oklahoma	83	285	368
East Texas	38	114	152
West Texas	7	94	101
Texas Panhandle	10	42	52
North Central Texas	28	110	138
Southwest Texas	21	131	152
Texas Gulf	12	129	141
Louisiana Gulf	3	43	46
North Louisiana	30	100	130
Arkansas	11	31	42
Mississippi	4	17	21
Alabama	0	4	4
East Texas Gas	1	14	15
Montana	3	36	39
Utah	1	16	17
Wyoming	10	63	73
Colorado	4	50	54
New Mexico	8	51	59
Total June	409	1,866	2,275
Total May	490	1,771	2,261
Difference	81	95	14

Note—In the following report the Section, Township and Range are given first; then the farm, the owner, the serial number of the well and the initial production of the well. In lines where the Section, Township and Range are missing the wells are located in the Sections, Townships and Ranges which appear next above in the report.

East Texas Fields

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Cherokee	3	0	3	0
Ellis	1	0	1	0
Franklin	1	0	1	0
Gregg	44	3,334	0	0
Henderson	1	0	1	0
Hopkins	3	0	3	0
Hunt	1	0	1	0
Rusk	38	2,233	2	0
Smith	3	130	1	0
Upshur	4	212	1	0
Van Zandt	7	698	2	0
Total June	106	6,607	16	0
Total May	125	7,891	22	0
Difference	19	1,284	6	0

Summary of Rigs and Wells Drilling

County—	Rigs	S.D.	Drg.	Ttl.
Anderson	0	1	0	1
Angelina	0	4	0	4
Bowie	0	1	0	1
Cherokee	0	0	2	2
Ellis	0	3	0	3
Fannin	0	0	1	1
Freestone	1	1	0	2
Gregg	10	7	24	41
Henderson	1	0	0	1
Hopkins	1	0	2	3
Hunt	0	1	0	1
Kaufman	1	1	0	2
Leon	0	0	2	2
Limestone	0	1	2	3
Morris	1	4	0	5
Navarro	0	0	1	1
Red River	1	1	2	4
Rusk	12	6	25	43
Smith	3	1	2	6
Titus	0	1	0	1
Upshur	5	3	4	12
Van Zandt	2	5	6	13
Total June	38	41	73	152
Total May	47	53	65	165
Difference	9	12	8	13

WELLS COMPLETED

CHEROKEE COUNTY

Hooper et al's No. 1 Dr. Overton ..... abd
Mid-Texas Oil Co.'s No 1 A. P. Pace ... abd
Wilson-Stubbs Oil Co.'s No. 1 Lucy Roberts ..... abd
Wells completed 3
Abandoned 3

ELLIS COUNTY

Armstrong Bros.' No. 1 Winn ..... abd
Wells completed 1
Abandoned 1

FRANKLIN COUNTY

Fred Prince et al's No. 1 E. L. Phillips abd
Wells completed 1
Abandoned 1

GREGG COUNTY

Atlantic and Stanolind Oil & Gas Co.'s No. 5 Fishburn, open tubing 83
Jim Bond's No. 2 C. Fisher, open tubing 84
Gulf Prod. Co.'s No. 6 Fonville, open tubing 100
Humble Oil & Ref. Co.'s No. 11 J. F. Boles, ¾-in. tubing 55
Magnolia Pet. Co.'s No. 7 G. W. Ritchie, 1-in. tubing 109
Ray Drilling Co.'s No. 1 A. H. Tubbs, pumping 4
Reed et al's No. 1 State, open tubing .. 90
Sun Oil Co.'s No. 4-A Allen Tooke, open tubing 85
Superior Oil Co.'s No. 14 Ingram, open tubing, ¼ hr. 40
M. E. Trapp's No. 1 R. B. White, open tubing 100
Culver and Knox's No. 1 J. Elder, open tubing 125
J. S. King's No. 1 fee, ¾-in. tubing 78
Shell Pet. Corp.'s No. 6 D. M. Bates, tapered tubing 38
Atlantic and Sun Oil Co.'s No. 35 Hayes, open tubing 60
Gulf Prod. Co.'s No. 27 M. O. Sheppard, open tubing 100
Reed et al's No. 2 State Land, open tubing 90
Simms Oil Co.'s No. 2 Bob Wood, open tubing 40
Superior Oil Co.'s No. 17 Ingram, open tubing 220
Cranfill & Reynolds' No. 4 S. Scott, open tubing 120
Gulf Prod. Co.'s No. 6 Davis, open tubing 85
The Texas Co.'s No. 17 M. T. Cole, open tubing 87
Atlantic Oil & Prod. Co.'s No. 40 Moores, open tubing 100
Atlantic Oil & Prod. Co.'s No. 41 Moores, open tubing 84
P. R. Bond's No. 1 T. Anderson, open tubing 50
Dyck Oil Co.'s No. 6 J. M. Christian, open tubing 105
Gulf Prod. Co.'s No. 7 F. M. Fonville, open tubing 80
A. D. King, trustee's No. 2 D. T. Lloyd, open tubing 120
Stanolind Oil & Gas Co.'s No. 5 Meadows 1-in. tubing 45
Superior Oil Co.'s No. 15 Ingram, open tubing, ¼ hr. 55
Gulf Prod. Co.'s No. 13 Muckelroy, open tubing 57
Island Oil Co.'s No. 6 Register, open tubing 120
Tide Water Oil Co.'s No. 10 Hughey, open tubing 40
East Texas Ref. Co.'s No. 4 D. Caldwell, open tubing, 20 min. 15
Gulf Prod. Co.'s No. 26 M. O. Sheppard, open tubing 75
Humble Oil & Ref. Co.'s No. 10 A. Carter, ¾-in. tubing 60
Rainey et al's No. 1 State, open tubing.. 75
Yount Lee Oil Co.'s No. 7 V. Calvin, 11/16-in. tubing choke 63
Yount Lee Oil Co.'s No. 4 M. M. Custer, 11/16-in. tubing choke 45
Dearing et al's No. 1 Church, flowing open tubing 15
Gulf Prod. Co.'s No. 51 Hilburn estate, open tubing 80
Gulf Prod. Co.'s No. 11 Muckelroy, open tubing 75
Magnolia Petroleum Co.'s No. 4 M. T. Cole, open tubing 112
Sun Oil Co.'s No. 6 A. G. Morton, open tubing 38
The Texas Co.'s No. 16 M. T. Cole, open tubing 32
Wells completed 44
Initial production 3334

RUSK COUNTY

Ajo Oil Co.'s No. 4 Sanders, open tubing 100
Hasting & Dodson's No. 1 E. B. S. Florey, open tubing 10
Snowden & McSweeney's No. 10 R. Laird, open tubing, ½ hr. 72
Turman Oil Co.'s No. 7 Brightwell, open tubing 115
Nathan Pipe & Supply Co.'s No. 1 Joe Lee, pumping 25
Berry Oil Co.'s No. 1 B. F. Maxwell, open tubing 100
George Demonstrand's No. 5 L. J. Pinkston, open tubing 75
Gulf Prod. Co.'s No. 8 Grissom, open tubing 65
Gulf Prod. Co.'s No. 5 W. A. Maxwell, open tubing 70
Humble Oil & Ref. Co.'s No. 2-A M. Smith, per day, swabbing 25
Mid-Kansas Oil & Gas Co.'s No. 30 W. T. Grissom, 2-in. lead 98
Mid-Kansas Oil & Gas Co.'s No. 14 E. E. Moores, 2-in. lead 56
Pinkston et al's No. 1 E. L. Pinkston, per day, pumping 35
Texas-Jersey Oil Corp.'s No. 1 Gaston Ind. School 85
C. K. West's No. 4 S. & N. Clay, open tubing 50
Humble Oil & Ref. Co.'s No. 8-A H. Sexton, ¾-in. tubing 30
Jackson-Wise and Markham's No. 4 Christian, ¼ hr. open tubing 55
W. S. Randall's No. 2 Buntyn, open tubing 95
Tide Water Oil Co.'s No. 5 F. L. Buntyn, open tubing, 10 min. 12
Cullen Oil Co.'s No. 1 A. Thrash, 2-in. tubing 40
Humble Oil & Ref. Co.'s No. 19-A S. A. Plowman, ¾-in. tubing choke 87
Overton Ref. Co. and Hatcher's No. 1 Morris, open tubing 75
J. I. Roberts' No. 2 Brightwell, 1-in. tubing 75
Roberts Bros.' No. 2 W. J. Brightwell, open tubing 75
Weaver-Crim's No. 2-B Bean, open tubing, ¼ hr. 15
Dyck Oil Co.'s No. 3 John Bell, ¾-in. tubing choke 75
Earl and Martin's No. 2 Pinkston, open tubing 80
Gulf Prod. Co.'s No. 6-D Mayfield, open tubing 55
Gulf Prod. Co.'s No. 24 G. G. Turner, open tubing 72
Humble Oil & Ref. Co.'s No. 6 First State Bank, ¾-in. tubing 90
Mid-Kansas Oil & Gas Co.'s No. 4 C. L. Graham, open tubing 32
Trico Oil Co.'s No. 2 D Bradford, open tubing 15
Turman Oil Co.'s No. 7 Dark, open tubing 60
Paulett et al's No. 3 Ed Sparks ..... abd
Lassiter's No. 1 Burton ..... abd
Humble Oil & Ref. Co.'s No. 10 P. R. DrGuerin, ¾-in. tubing choke 60
Snowden & McSweeney's No. 9 R. Laird, ½ hr. through open tubing 80
Sun Oil Co.'s No. 1 W. D. Tucker, ¼-in. tubing, ½ hr. 24
Wells completed 38
Initial production 2233
Abandoned 2

SMITH COUNTY

Mundt et al's No. 1 O. G. Funderburg.. abd
Kimble and Smith's No. 1 N. Greene, open tubing 70
Walter M. Young et al's No. 1 Gus Stone, open tubing 60
Wells completed 3
Initial production 130
Abandoned 1

UPSHUR COUNTY

Wadley and Lyon's No. 1 Mrs. Susie Smith ..... abd
Mudge Oil Co.'s No. 9-A Free, open tubing 100
Rosier & Pendleton's No. 3 E. G. Evans, open tubing 75
Salome-Cooper Drilling Co.'s No. 7 M. O'Byrne, open tubing 37
Wells completed 4
Initial production 212
Abandoned 1

VAN ZANDT COUNTY

Petroleum Pipe Line Co.'s No. 2 Mrs. S. McGee, pumping 12
Pure Oil Co.'s No. 6 H. P. Tunnell 250
C. P. Cole et al's No. 1 Mrs. S. Tunnell abd
Pure Oil Co.'s No. 7 O. L. Swain 236
Golf Oil Co.'s No. 1 Stone ..... abd
Pure Oil Co.'s No. 4 J. A. Bracken 164
Pure Oil Co.'s No. 5 B. W. Russell 36
Wells completed 7
Initial production 698
Abandoned 2

HENDERSON COUNTY

Dr. J. T. Kennon et al's No. 1 Rowe ... abd
Wells completed 1
Abandoned 1

HOPKINS COUNTY

Burgess & Sinson No. 1 First Nat. Bank abd
E. P. Corley's No. 1 Jumper ..... abd
S. N. Stausfer's No. 1 First Nat. Bank.. abd
Wells completed 3
Abandoned 3

HUNT COUNTY

Solar Exploration Co.'s No. 1 Smith ... abd
Wells completed 1
Abandoned 1

Oklahoma Fields

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Atoka	3	3	2	0
Carter	6	882	1	1
Cotton	2	0	2	0
Creek	12	298	5	0
Comanche	1	5	0	0
Garfield	1	75	0	0
Grady	1	0	1	0
Hughes	7	570	0	0
Jefferson	1	0	1	0
Kiowa	1	0	1	0
Lincoln	1	90	0	0
Logan	1	1,373	0	0
Muskogee	3	9	1	0
Marshall	2	0	1	1
Noble	2	2,662	0	0
Oklahoma	1	3,007	0	0
Okmulgee	6	31	3	1
Okfuskee	3	53	0	1
Osage	6	591	1	0
Pottawatomie	5	638	1	0
Payne	2	574	1	0
Pawnee	2	4	0	1
Pontotoc	2	84	0	0
Seminole	4	2,916	0	0
Stephens	2	0	2	0
Tulsa	5	110	3	0
Wagoner	6	125	3	1
Total June	88	14,000	28	6
Total May	98	22,339	36	8
Difference	10	8,339	8	2

Summary of Rigs and Wells Drilling

County—	Rigs	Dlg.	Ttl.
Atoka	0	7	7
Beckham	0	1	1
Caddo	0	8	8
Cleveland	0	1	1
Coal	0	3	3
Creek	6	35	41
Carter	2	5	7
Comanche	0	2	2
Cotton	0	1	1
Grant	1	0	1
Garfield	1	1	2
Grady	0	1	1
Hughes	8	20	28
Jefferson	1	6	7
Kay	0	7	7
Kingfisher	1	0	1
Kiowa	0	2	2
Logan	0	6	6
Lincoln	0	2	2
Marshall	1	5	6
Murray	2	0	2
Muskogee	2	4	6
Noble	2	7	9
Oklahoma	25	18	43
Osage	10	22	32
Okmulgee	1	14	15
Okfuskee	2	2	4
Payne	0	15	15
Pontotoc	3	13	16
Pittsburg	2	3	5
Pottawatomie	5	29	34
Pushmataha	0	1	1
Seminole	2	11	13
Stephens	2	10	12
Tillman	1	2	3
Tulsa	2	16	18
Wagoner	1	3	4
Washita	0	2	2
Total June	83	285	368
Total May	78	276	354
Difference	5	9	14

WELLS COMPLETED

ATOKA COUNTY

3-1-14 Kelly Spring 3 ..... dry
9-1-14 Croxton 3 3
3-1-14 Kelly Spring 2 ..... dry
Wells completed 3
Production 3
Dry 2

CARTER COUNTY

25- 1-3w Lloyd Oil Co. 1 405
30- 1-2w K. D. Oil Co. 3 287
25-4s-3w Kanaco Oil Co. 3 ..... dry
18-2s-2w Athey & Lively 1 10
4-1s-3w Clowe et al 1 ..... gas
30-1s-2w K. D. Oil Co. 2 180
Wells completed 6
Production 882
Dry 1
Gas 1
Gas production 8,000,000

COTTON COUNTY

6-2s-9w P. Olds et als 1 ..... dry
6-2s-9w Donald Bros. 1 ..... dry
Wells completed 2
Dry 2

CREEK COUNTY

34-18- 8 F. O. Ahin 2 100
4-17-10 Creokla Oil Co. 1 35
30-17-12 W. G. Banks 1 ..... dry
4-16-12 S. W. Anthony 2 ..... dry
33-14- 8 F. Billingslea et al 1 ..... dry
7-18-11 Shaffer et al 1 ..... dry
29-19- 9 Johnson O. & R. Co. 3 55
19-19- 9 Dean et al 1 6
28-19- 8 Taylor et al 1 ..... dry
17-19- 9 Central Com. Drlg. Co. 4 60
5-17- 7 Borger et al 10 2
36-17-11 Sherry & Murta 3 40
Wells completed 12
Production 298
Dry 5

COMANCHE COUNTY

20-2-10w Ashcroft & Palmer 2 5
Wells completed 1
Production 5

GARFIELD COUNTY

25-23-4w Champlin Ref. Co. 2 75
Wells completed 1
Production 75

GRADY COUNTY

6-3-5w J. Ray 2 ..... dry
Wells completed 1
Dry 1

HUGHES COUNTY

12-8-8 G. Orr 1 8
15-7-8 Mid-Continent Pet. Corp. 2 110
22-7-8 Tilley et al 2 65
10-7-8 Manahan 3 130
22-7-8 Royce et al 2 100
22-7-8 Mainard et al 2 45
10-7-8 Manahan 2 112
Wells completed 7
Production 570

JEFFERSON COUNTY

24s-8w Linson et al 2 ..... dry
Wells completed 1
Dry 1

KIOWA COUNTY
5-6-16w McWhirter Bros. 1 ..... dry

Wells completed 1
Dry 1

LINCOLN COUNTY
1-15-6 Pure Oil Co. 1 90

Wells completed 1
Production 90

LOGAN COUNTY
30-19-4w Shell Pet. Corp. 1 1273

Wells completed 1
Production 1273

MUSKOGEE COUNTY
8-13-16 Braman Oil Co. 7 1
33-16-15 Mack Drlg. Co. 1 ..... dry
8-15-18 Foits & Godfrey 4 8

Wells completed 3
Production 9
Dry 1

MARSHALL COUNTY
35-5s-6 Thomas et al 1 ..... dry
3-7s-6 J. Peacock 3 ..... gas

Wells completed 2
Dry 1
Gas 1
Gas production 500,000

NOBLE COUNTY
19-20-2w Shell Pet. Corp. et al 1 ..... *1110
7-20-2w Shell Pet. Corp. et al 1 ..... †1552

Wells completed 2
Production 2662

*Four hours; †3½ hours.

OKLAHOMA COUNTY
26-11-3w Phillips Pet. Co. 3 ..... *3007

Wells completed 1
Production 3007

*Four hours.

OKMULGEE COUNTY
1-12-13 Rutz Oil Co. 1 ..... dry
21-15-14 Papoose Oil Co. 7 5
4-11-12 Claude Drlg. Co. 6 ..... dry
6-14-11 J. S. Wise 1 ..... dry
4-12-11 J. L. Selby 1 ..... gas
15-13-12 Sheldon Oil Co. 5 25

Wells completed 6
Production 31
Dry 3
Gas 1
Gas production 2,750,000

OKFUSKEE COUNTY
36-10-11 Olean Pet. Co. 1 50
20-10- 9 Burke Greis ..... gas.
11-10-11 Regal Oil Co. 1 3

Wells completed 3
Production 53
Gas 1
Gas production 2,500,000

OSAGE COUNTY
21-24-7 Lewis Prod. Co. 1 220
16-24-7 Paters et al 1 280
30-22-9 E. O. Platter 9 ..... dry
12-24-7 Natl. Ref. Co. 1 25
25-24-7 Bay Oil Co. 1 16
27-21-9 Gary & Tolson 1 50

Wells completed 6
Production 591
Dry 1

POTTAWATOMIE COUNTY
36-7-4 Okla. Oil Co. 1 180
28-7-4 Phillips Pet. Co. 1 143
22-7-5 Wood Oil Co. 1 120
5-6-5 Sinclair Prairie Oil Co. 1 190
33-7-4 Fixico Oil Co. 1 ..... dry

Wells completed 5
Production 633
Dry 1

PAYNE COUNTY
9-18-5 Deep Rock Oil Corp. 5 574
28-19-5 F. C. Hall 1 ..... dry

Wells completed 2
Production 574
Dry 1

PAWNEE COUNTY
6-20-5 Rookstool 1 ..... gas
33-23-3 Watchorn O. & G. Co. 9 45

Wells completed 2
Production 45
Gas 1
Gas production 1,000,000

PONTOTOC COUNTY
29-5-8 H. & M. Drlg. Co. 2 60
28-5-8 Delany 2 24

Wells completed 2
Production 84

SEMINOLE COUNTY
17-9-6 Gypsy Oil Co. 3 797
4-9-6 Pierce Oil Co. 2 1332
17-9-6 Gypsy Oil Co. 1 670
13-6-7 Pure Oil Co. 7 117

Wells completed 4
Production 2916

STEPHENS COUNTY
12s3w McAlester 2 ..... dry
19-2s-3w McHenry 1 ..... dry

Wells completed 2
Dry 2

TULSA COUNTY
33-18-14 Boyd et al 7 80
33-18-14 J. Stein 1 ..... dry
26-17-14 Bryan Pet. Co. 1 ..... dry
17-19-11 Baker 1 ..... dry
19-19- 9 Holmes & Burton 1 30

Wells completed 5
Production 110
Dry 3

WAGONER COUNTY
22-18-15 Dunbar et al 1 ..... gas
14-18-15 R. Godfrey 2 ..... dry
24-18-15 L. B. Jackson 1 ..... dry
26-18-15 Sheridan Oil Co. 1 50
35-18-15 McIntire 1 25
14-17-18 Smith et al 2 50

Wells completed 6
Production 125
Dry 2
Gas 1
Gas production 500,000

Kansas Fields

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Barton	1	0	1	0
Coffey	1	30	0	0
Cowley	2	1,205	1	0
Elk	1	30	0	0
Ellsworth	2	511	0	0
Greenwood	4	25	3	0
Harvey	5	2,639	1	0
Kingman	1	315	0	0
McPherson	6	2,463	1	2
Russell	1	144	0	0
Reno	2	240	0	0
Sumner	1	600	0	0
Woodson	2	0	2	0
Total June	29	8,202	9	2
Total May	30	16,589	17	2
Difference	1	8,687	8	0

Summary of Rigs and Wells Drilling

County—	Rigs	Drlg.	Ttl.
Barton	1	2	3
Butler	0	2	2
Cowley	0	2	2
Ellsworth	1	2	3
Graham	0	1	1
Greenwood	0	6	7
Harvey	6	19	25
Kingman	1	0	1
McPherson	4	25	29
Pratt	0	1	1
Rice	1	10	11
Russell	2	1	3
Reno	1	9	10
Rooks	1	0	1
Saline	0	1	1
Sedgwick	1	1	2
Sumner	0	2	2
Trego	0	1	1
Total June	20	85	105
Total May	22	108	130
Difference	2	23	25

WELLS COMPLETED

BARTON COUNTY
12-17-10w Slick, Pryor & Lockhart 1 .. dry

Wells completed 1
Dry 1

COFFEY COUNTY
14-22-12 Ackerman et al 2 30

Wells completed 1
Production 30

COWLEY COUNTY
7-30- 5 Wakefield 3 ..... dry
22-32- 4 Sinclair Prairie 2 1205

Wells completed 2
Production 1205
Dry 1

ELK COUNTY
21-29-9 Anderson et al 1 30

Wells completed 1
Production 30

ELLSWORTH COUNTY
12-17-10w Cont. Oil Co. 1 90
21-16-10w Gypsy Oil Co. 1 421

Wells completed 2
Production 511

GREENWOOD COUNTY
11-24-13 B. Young 1 ..... dry
36-23-11 Burt Loy et al 1 ..... dry
1-23- 9 Sheedy et al 1 ..... dry
17-25-13 Schull Drlg. Co. 1 25

Wells completed 4
Production 25
Dry 3

HARVEY COUNTY
17-22-3w Cont. Oil Co. 1 320
29-22-3w United Pet. Co. 1 ..... dry
30-22-3w W. C. McBride, Inc. 167
19-22-3w Prod. & Ref. Corp. 2 1440
20-22-3w Stanolind O. & G. Co. 2 712

Wells completed 5
Production 2639
Dry 1

KINGMAN COUNTY
30-27-10w Skelly Oil Co. 2 315

Wells completed 1
Production 315

McPHERSON COUNTY
23-21-3w Mid-Kansas O. & G. Co. 3 1085
27-21-3w Sherman et al 1 ..... dry
16-21-3w Stanolind O. & G. Co. 4 590
24-19-2w Lario O. & G. Co. 4 788
23-19-2w Helmerich & Payne 2 ..... gas
21-19-1w Johnson et al 2 ..... gas

Wells completed 6
Production 2463
Dry 1
Gas 2
Gas production 24,520,000

RUSSELL COUNTY
9-14-15w Billings et al 1 144

Wells completed 1
Production 144

RENO COUNTY
35-23-4w Olson Oil Co. 2 70
24-23-4w Olson Oil Co. 1 170

Wells completed 2
Production 240

SUMNER COUNTY
17-35-3w Gypsy Oil Co. 3 600

Wells completed 1
Production 600

WOODSON COUNTY
32-25-14 Ward McGinnis ..... dry
30-25-14 H. Allen 1 ..... dry

Wells completed 2
Dry 2

North Central Texas Fields

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Archer	16	1,347	10	0
Brown	1	9	1	0
Clay	2	15	1	0
Grayson	1	0	1	0
Jack	2	50	1	0
Montague	1	0	1	0
Palo Pinto	1	0	1	0
Shackelford	2	72	1	0
Stephens	1	0	1	0
Wichita	1	0	1	0
Young	16	1,049	6	0
Total June	44	2,533	25	0
Total May	78	786	52	4
Difference	34	1,747	27	4

Summary of Rigs and Wells Drilling

County—	Rigs	S.D.	Drg.	Ttl.
Archer	7	7	9	23
Brown	1	2	5	8
Callahan	0	6	3	9
Clay	0	1	2	3
Coleman	2	4	1	7
Cooke	0	3	0	3
Eastland	1	2	1	4
Erath	0	2	0	2
Foard	0	0	1	1
Grayson	0	3	0	3
Jack	1	3	4	7
Johnson	0	2	0	2
Montague	0	1	0	1
Palo Pinto	1	4	5	10
Parker	0	3	0	3
Shackelford	2	2	5	9
Stephens	0	1	0	1
Tarrant	1	1	0	2
Throckmorton	1	1	1	3
Wichita	4	2	4	10
Wilbarger	3	1	2	6
Wise	0	1	1	2
Young	4	4	10	18
Total June	28	56	54	138
Total May	25	67	46	138
Difference	3	11	8	0

WELLS COMPLETED

ARCHER COUNTY
Baily et al' No. 1 Archer County School Land ..... abd
M. M. Bradley's No. 3 Garvey ..... abd
W. B. Hamilton's No. 2 Pace 200
Stafford and Hamer's No. 1 Archer County ..... abd
Bridwell Oil Co.'s No. 1 Oil Investment Co. ..... abd
H. H. Fraser's No. 1 Coleman ..... abd
F. H. E. Oil Co.'s No. 1 W. T. Coffield. 80
O. Gilbert's No. 1 Deskin ..... abd
Jack Grace's No. 3 Andrews 104
L. A. Hedrick et al's No. 1 Prideaux.. 903
Kisk Oil Co.'s No. 8 Prideaux 10
B. C. McCarty's No. 1 Lane ..... abd
W. B. Omohundro's No. 6 Turbeville .. abd
Seits, Comegys, Seits' No. 1 Prideaux .. 50
J. H. Turman's No. 1 Bell ..... abd
W. C. Young No. 1 Kovar ..... abd

Wells completed 16
Initial production 1347
Abandoned 10

BROWN COUNTY
McGinis's No. 1 E. R. Patterson ..... abd

Wells completed 1
Abandoned 1

CLAY COUNTY
Kessler et al's No. 1 Bentley ..... abd
Bugal Oil Co.'s No. 1 Saner, Saner & Lomax 15

Wells completed 2
Initial production 15
Abandoned 1

GRAYSON COUNTY
J. F. Morrisey's No. 1 Knox Greer ..... abd

Wells completed 1
Abandoned 1

JACK COUNTY
Cable and Fresno's No. 1 Moore ..... abd
Brazos River Gas Co.'s No. 2 A. C. Moore 50

Wells completed 2
Abandoned 1
Initial production 50

MONTAGUE COUNTY
E. G. Hardin's No. 1 Oscar Yeager .... abd

Wells completed 1
Abandoned 1

PALO PINTO COUNTY
J. C. Ward's No. 1 Chapman ..... abd

Wells completed 1
Abandoned 1

SHACKELFORD COUNTY
Freeman et al's No. 3 Morris Buie .. 72
Jones et al's No. 5 Dodson ..... abd

Wells completed 2
Initial production 72
Abandoned 1

STEPHENS COUNTY
Mid-Texas Oil Co.'s No. 1 Martin .... abd

Wells completed 1
Abandoned 1

WICHITA COUNTY
W. W. Parts et al's No. 1 Mrs. Parker . abd

Wells completed 1
Abandoned 1

YOUNG COUNTY
C. Christie's No. 1 McCluer ..... abd
Helena Oil & Gas Co.'s No. 1 League .. abd
Pacific Atlantic et al's No. 1 Jackson.. abd
Pearl Oil Co.'s No. 1 Andrews ..... abd
White and Duncan's No. 1 Smith 60
D. M. Knox et al's No. 2 Manning 285
Beavers, Reed et al's No. 1 Montgomery 250
J. F. Craig's No. 1 Lowe 15
F. W. Massie's No. 1 Newman 4
Petroleum Production Co. et al's No. 1 Wolf ..... abd
H. B. Sparks' No. 5 R. Campbell 3
White and Duncan's No. 1 Mrs. E. M. Wolf 200
D. L. Wolf's No. 1 D. L. Wolf 225
Worth Oil Co.'s No. 9 George Garrett.. 3
Worth Oil Co.'s No. 10 George Garrett.. 4
Mook Texas Oil Co.'s No. 1 Graham .. abd

Wells completed 16
Initial production 1049
Abandoned 6

West Texas Fields

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Culberson	1	0	1	0
Glasscock	3	877	0	0
Howard	5	573	1	0
Jones	1	275	0	0
Pecos	1	0	1	0
Reagan	2	350	1	0
Scurry	1	0	1	0
Ward	1	917	0	0
Winkler	1	225	0	0
Total June	16	3,217	5	0
Total May	11	768	3	0
Difference	5	2,449	2	0

Summary of Rigs and Wells Drilling

County—	Rgs.	S.D.	Drlg.	Ttl.
Brewster	0	1	0	1
Concho	0	1	0	1
Crane	0	1	0	1
Crockett	0	2	0	2
Ector	0	1	5	6
Fisher	0	2	1	3
Garza	0	1	0	1
Glasscock	0	1	1	2
Howard	2	5	7	14
Irion	0	2	0	2
Jones	0	4	2	6
Loving	0	1	0	1
Pecos	1	5	4	10
Presidio	0	1	0	1
Reagan	0	0	7	7
Reeves	0	3	0	3
Runnels	0	2	0	2
Schleicher	0	1	1	2
Scurry	0	5	0	5
Terrell	0	2	0	2
Ward	3	10	9	22
Winkler	1	1	5	7
Total June	7	52	42	101
Total May	19	53	46	118
Difference	12	1	4	17

WELLS COMPLETED

CULBERSON COUNTY
Van Horn O. & G. Co. No. 1 Hall ..... abd

Wells completed 1
Abandoned 1

GLASSCOCK COUNTY
Wooten No. 1 Edwards 314
Humble O. & R. Co. No. 1 Washer 558
Tribal Oil Co. No. 1 M. M. Edwards ... 5

Wells completed 3
Production 877

HOWARD COUNTY
Sinclair Prairie Oil Co. No. 1 Denman, per day pumping 90
Mid-Cont. O. & G. Co. No. 2 Denman .. 282
Sinclair Prairie Oil Co. No. 5 Dodge, pumping 100
Sinclair Prairie Oil Co. No. 6 Dodge, pumping 100
Straughan and Texannati No. 2 Kaiser. abd

Wells completed 5
Production 573
Abandoned 1

JONES COUNTY
Condor Pet. Co. No. 1 Holt 275

Wells completed 1
Production 275

PECOS COUNTY
Wahlenmaier et al No. 1 Monroe ..... abd

Wells completed 1
Abandoned 1

REAGAN COUNTY
Big Lake Oil Co. No. 9-C University .. 350
Wahlenmaier Pet. Co. No. 1 Hughes ... abd

Wells completed 2
Production 350
Abandoned 1

SCURRY COUNTY
Guthrie No. 1 Clarkson ..... abd

Wells completed 1
Abandoned 1

WARD COUNTY
Gulf Prod. Co. No. 17 Hutchings 236
Humble O. & R. Co. No. 1 Richter 50
Skelly Oil Co. No. 2 Brillhart 18
Prince Bros. No. 2 Hall-Roberts 80
Sturm-Simms Oil Co. No. 4 Jones 75
Barnsdall Oil Co. No. 5 Henry 28
Sturm et al No. 2 Jones 320
Graham Corp. No. 1 John Bennett 89
Sinclair Prairie Oil Co., No. 2 H. Archenhold 20

Wells completed 9
Production 917

WINKLER COUNTY
Richardson et al No. 1 State 225

Wells completed 1
Production 225

Panhandle Fields

Summary of Wells Completed

County—	Comp.	Prod.	Abd.	Gas
Gray	9	4,742	0	2
Hutchinson	1	172	0	0
Total June	10	4,914	0	2
Total May	17	1,907	1	5
Difference	7	3,007	1	3

Summary of Rigs and Wells Drilling

County—	Rigs	S.D.	Drlg.	Ttl.
Carson	1	0	1	2
Childress	1	2	0	3
Gray	6	6	13	25
Hutchinson	1	3	5	9
Hemphill	0	1	0	1
Moore	0	2	1	3
Oldham	0	1	0	1
Roberts	0	1	0	1
Wheeler	1	2	4	7
Total June	10	18	24	52
Total May	12	21	16	49
Difference	2	3	8	3

WELLS COMPLETED

GRAY COUNTY

Gordon Burch et al's No. 1 Langham.. gas
North American Oil & Gas Co.'s No. 1 Sullivan (old well drilled deeper) .. gas
Phillips Pet. Co.'s No. 2 Palmer (old well drilled deeper) 623
Skelly Oil Co.'s No. 1 Thut 6
The Texas Co.'s No. 2 Faulkner (old well drilled deeper) 271
Dolomite Prod. Co.'s No. 1 M. E. Sailor. 108
The Texas' Combs-Worley 297
Wilcox Oil & Gas Co.'s No. 22 Combs-Worley 2911
Phillips Pet. Co.'s No. 3 (old well drilled deeper) 526

Completions 9
Initial production 4742
Gas wells 2

HUTCHINSON COUNTY

Stanolind Oil & Gas Co.'s No. 4 Moore and Langdon 172

Wells completed 1
Initial production 172

Southwest Texas Fields

Summary of Field Operations of Month

	Comp.	Prod.	Dry Gas	Rigs	Drlg.	Ttl.
Riddle	1	1,720	0	0	1	2
Hilbig	1	1,680	0	0	0	1
Sarnosa	1	0	1	0	0	0
N. Gov. Wells	6	5,558	0	0	2	1
Saxet	6	160	3	2	0	4
Rio Grande	1	0	1	0	0	0
White Point	1	0	0	1	0	0
Laurel	3	50	2	0	1	4
Escobas	2	160	0	0	0	1
Miscellaneous	52	2,715	48	0	15	118
Total June	74	11,923	55	3	21	131
Total May	59	3,988	36	3	26	126
Difference	15	7,935	19	0	5	5

WELLS COMPLETED

RIDDLE POOL—BASTROP COUNTY

Riddle, Marts & Beavens 2 1720

HILBIG POOL—BASTROP COUNTY

Friske, Humble Oil & Ref. Co. 2 1680

SARNOSA POOL—DUVAL COUNTY

Well, Sarnosa Oil Co. ..... abd

N. GOV. WELLS POOL—DUVAL COUNTY

Hahl, Navarro Oil Co. 19 840
Wendt, Southwest Drlg. Co. 9 1440
Wendt, The Texas Co. 5 1584
Hahl, Navarro Oil Co. 7 50
Weiderkehr, Sun Oil Co. 2 336
Wendt, The Texas Co. 6 1308

SAXET POOL—NUECES COUNTY

McGregor, Houston Oil Co. 1 100
Smith, Holliday 2 ..... gas
Quiros, Shasta Oil Co. 2 ..... abd
Humphreys, Gulf Port Oil Co. 3 ..... abd
Isancee, Gulf Port Oil Co. 1 ..... abd
Isancee, Sinclair Prairie 1 ..... gas

RIO GRANDE CITY POOL—STARR CO.

Hinojosa, O. V. McIntyre 1 ..... abd

WHITE POINT POOL—SAN PATRICIO CO.

Rachel, Saxet Oil Co. 19 ..... gas

LAUREL POOL—WEBB COUNTY

Garcia-Villareal, Cole Wise & Laurel 3 abd
Laurel, South Texas Oil Co. 7 50
Garcia-Villareal, Reward Oil Co. 1 .... abd

ESCOBAS POOL—ZAPATA COUNTY

Measles, The Texas Co. 28 50
Measler, The Texas Co. 27 50

Wells completed 22
Production 9208
Tests abandoned 7
Gas production 35,000,000

Miscellaneous Counties

BANDERA COUNTY

Duke, E. A. Parkford 1 ..... abd
Watson, Palms-Winn Oil Co. 1 ..... abd

BASTROP COUNTY

Rivers, Marts & Beavens 1 ..... abd
Reyes, Marts & Beavens 1 ..... abd
Harris, Witherspoon Oil Co. 1 240
Schmidt, H. Robertson 1 ..... abd
Wilhelm, Humble Oil & Ref. Co. 3 ...2400

BEE COUNTY

Wood, W. C. Pool 1 ..... abd
Haldenfels, Nichols & Bruner 1 ..... abd

BEXAR COUNTY

S. A. Land & Dev., Wm. V. Ballard A-1 abd
Truitt, Motes-Campbell 1 ..... abd
Harring, Milo Trussell 1 ..... abd
Stramberg, Amaden-Ingersoll-Miller 1. .abd
Diaz, C. J. Lacompte 4 ..... abd

BLANCO COUNTY

McMillan, Hardy Sitton 1 ..... abd
Ludders, Hardy Sitton 1 ..... abd
McGee 1 ..... abd

CALDWELL COUNTY

Lawler, F. L. Thompson 1 55
Dickerson, Hickman et al 1 ..... abd
Walker, Bob Rose B-2 ..... abd

DIMMITT COUNTY

Price, Ed Anglin 1 ..... abd
Denton, Motes-Campbell 1 ..... abd

DUVAL COUNTY

Duval County Ranch Co., Whisenant & Trenchard 1 ..... abd
Parr, F. H. Etheridge 1 ..... abd
Smith-Corkill, J. J. O'Hern 1 ..... abd
Duval Co. Ranch Co., Magnolia Pet. Co. 1 ..... abd
State Bank of Alice, Cowden et al 1 .. abd

FRIO COUNTY

Burns, James E. Greenlee 1 ..... abd

GUADALUPE COUNTY

Lowman, Smith 1 ..... abd
Howell, Buckley Bros. 1 ..... abd
Wilson, Jas. Douglas 1 ..... abd
Lowman, Keene & Russell 1 ..... abd
Lowman, W. A. Scrutchins 1 ..... abd

HIDALGO COUNTY

Daskam, Dayle L. Smith ..... abd

KARNES COUNTY

Cross, A. E. Edmiston 1 ..... abd
Cannon, Sun Shine Oil Pool 1 ..... abd

LIVE OAK COUNTY

Griffith, Jacob, Buzzini & Pickett 1 .. 20
Akers, C. J. Webster O. & G. Co. 1 ... abd

MAVERICK COUNTY

Kifuri, H. E. Lewis 1 ..... abd
Beck, Garrett & Altgelt 1 ..... abd

McMULLEN COUNTY

Brown, C. B. Loftin 3 ..... abd
Hurt & Tartt, Jacob, Buzzini & Pickett 1 ..... abd

MEDINA COUNTY

Sub. Farms, Pearson Oil & Gas Co. 1.. abd

MILAM COUNTY

Terry, Birdwell 1 ..... abd

STARR COUNTY

Sanchez, Great Plains Oil Co. 2 ..... abd
Margo, Ed Linberg 1 ..... abd

TRAVIS COUNTY

Rummell, F. Fuch 1 ..... abd

UVALDE COUNTY

Henry, J. V. Scoggin 1 ..... abd

WEBB COUNTY

Callaghan, Edwin M. Jones 1 ..... abd
Smith, Gibson et al 1 ..... abd
Gates, Seagraves & Salsbury 2 ..... abd
Puig, Nueces Dev. Co. 1 ..... abd

Wells completed 52
Production 2715
Tests abandoned 48

Gulf Coast Fields

Summary of Field Operations

Texas

Field—	Comp.	Prod.	Abd.	Gas	Rigs	Drlg.	Ttl.
Ariola	0	0	0	0	0	1	1
Barbers Hill	4	4,695	0	0	0	9	9
Batson	0	0	0	0	0	1	1
Big Creek	0	0	0	0	0	2	2
Buckeye	1	1,930	0	0	0	3	3
Conroe	40	66,878	1	0	2	37	39
Damon M'nd.	0	0	0	0	0	1	1
Esperson	1	19	0	0	0	2	2
Greta	1	0	1	0	1	6	7
Hankamer	0	0	0	0	0	1	1
High Island	3	2,020	0	9	0	5	5
Hockley	0	0	0	0	0	1	1
Hull	0	0	0	0	0	5	5
Humble	0	0	0	0	0	2	2
Keeran	0	0	0	0	1	0	1
Livingston	3	790	2	0	0	2	2
Manvel	1	765	0	0	1	2	3
McFaddin	0	0	0	0	0	1	1
Mykawa	0	0	0	0	0	1	1
Pierce Jct.	0	0	0	0	0	3	3
Pt. Neches	0	0	0	0	0	1	1
Raccoon B'd.	0	0	0	0	0	1	1
Refugio	0	0	0	0	0	2	2
Saratoga	1	15	0	0	0	2	2
Sour Lake	0	0	0	0	0	1	1
Spurger	0	0	0	0	0	1	1
Stratton Rge.	0	0	0	0	0	1	1
Thompson	9	9,205	1	0	1	7	8
W. Columbia	1	0	1	0	0	0	0
Miscellaneous	18	400	16	1	6	39	35
Total June	83	86,720	22	1	12	129	141
Total May	112	120,894	22	1	11	112	123
Difference	29	34,174	0	0	1	17	18

Louisiana Coast

Black Bayou	0	0	0	0	0	1	1
Cameron Meadows	0	0	0	0	0	1	1
Choctaw	0	0	0	0	0	1	1
Darrow	0	0	0	0	0	1	1
Dog Lake	0	0	0	0	0	1	1
Gueydan	0	0	0	0	0	3	3
Hackberry, E.	2	1,540	0	0	0	2	2
Iowa	1	1,470	0	0	0	5	5
Jennings	1	0	1	0	0	1	1
Lake Barre	1	0	1	0	0	3	3
Lake Pelto	0	0	0	0	1	0	1
Lake Washington	1	125	0	0	0	0	0
Lockport	0	0	0	0	0	1	1
Port Barre	1	0	1	0	0	2	2
Starks	0	0	0	0	0	2	2
Sulphur	2	5,985	0	0	1	3	4
Sweet Lake	0	0	0	0	0	1	1
Vinton	1	25	0	0	0	1	1
Miscellaneous	5	0	5	0	1	13	14
Total June	15	8,245	8	0	2	42	46
Total May	17	8,535	8	1	7	34	41
Difference	2	290	0	1	4	9	5
Ttl. Gulf C.	98	94,965	30	1	15	172	187
Total May	129	129,429	30	2	18	146	164
Difference	31	34,464	0	1	3	26	23

WELLS COMPLETED

Texas Gulf Coast

BARBERS HILL—CHAMBERS COUNTY

Wilburn, Mills Bennett Prod. Co. 8-B .. 900
Kirby, Humble Oil & Ref. Co. 2 1110
Wilburn, Sinclair-Prairie Oil Co. 9 440
Wilburn, Sinclair-Prairie Oil Co. 10 2245

Wells completed 4
Production 4695
Abandoned or gas 0

BUCKEYE—MATAGORDA COUNTY

Stoddard, United North & South Dev. Co. 1 1930

CONROE—MONTGOMERY COUNTY

Wahrenberger, Atlas Oil Co. 1 ..... abd
Keystone Mills, Alpha Pet. Co. 4 2200
Keystone Mills, Alpha Pet. Co. 5 2359
Krohn, Alpha Pet. Co. 5-A 1800
Rhodes, Bishop Oil Co. 1 3045
Granger, E. S. Craft 1200
South Tex. Dev. Co., H. M. Crighton 1-A 2160
Keystone Mills, Gulf Coast Drlg. & Prod. Co. 7-B 1560
Keystone Mills, Gulf Coast Drlg. & Prod. Co. 8-B 2160
Massey, Harrison & Abercrombie 5 1440
Wiggins, Harrison & Abercrombie 5 .. 240
South Tex. Dev. Co., Hi-Grade Oil Co. 2.2400
Dobbins, Houston Oil Co. and Tide Water Oil Co. 3 815
Hamman, Houston Oil Co. and Tide Water Oil Co. 6 1440
Cartwright, Humble Oil & Ref. Co. 12-A 2220
DeWitt, Humble Oil & Ref. Co. 1 140
Hirsch, Humble Oil & Ref. Co. 2-A 1845
Madeley, Humble Oil & Ref. Co. 11 ...1795
Moore, Humble Oil & Ref. Co. 23 1300
Moorehead, Humble Oil & Ref. Co. 2 ..1000
South Texas Dev. Co., Humble Oil & Ref. Co. 24 1879
Wiggins & Athey, Humble Oil & Ref. Co. 3 2160
Hause, Navarro Oil Co. and Humble Oil & Ref. Co. 1 1920
Hause, Navarro Oil Co. and Farlyn Oil Co. 1-B 2230
South Texas Dev. Co., Neversuch Oil Co. 5 1560
Brown, Southern Liberty Oil Co. 1 1680
South Texas Dev. Co., Southern Liberty Oil Co. 3-B 1200
Madeley, Standard Oil Co. of Kansas 1-B 2450
Smith & Ratcliff, Standard Oil Co. of Kansas 6 2280
Hamman, Strake Pet., Inc. 1 1440
Clark, Sun Oil Co. 1 2130
Foster, Sun Oil Co. 5 1400
Foster, Sun Oil Co. 9 1030
B. E. Jones, Sun Oil Co. 3 1035
South Texas Dev. Co., Sun Oil Co. 5 ..1725
Stewart, Sun Oil Co. 5 1620
Dudley, Texas Co. 3 1080
Moody, Texas Co. 26 1800
Dean, Tide Water Oil Co. 8 1440
Krohn, Tide Water Oil Co. 4 2208

Wells completed 40
Production 66,878
Abandoned 1

ESPERSON—LIBERTY COUNTY

Davis, Cranfill-Reynolds Co. 7 19

GRETA—REFUGIO COUNTY

Wilson Heard, Nosral Oil Co. 1 ..... abd

HIGH ISLAND—GALVESTON COUNTY

Broussard, Yount Lee Oil Co. 3 710
Cade, Yount Lee Oil Co. 34 160
Smith, Yount Lee Oil Co. 15 1150

Wells completed 3
Production 2020

LIVINGSTON—POLK COUNTY

Kingsbury, Englewright et al 1 ..... abd
Reed, Roxie Oil Co. 1 ..... abd
Craig, Dick Schwab 1 790

Wells completed 2
Production 790
Abandoned 2

MANVEL—BRAZORIA COUNTY

Belcher, Texas Co. 1-B 765

SARATOGA—HARDIN COUNTY

Jordit, Rio Bravo Oil Co. 97 13

THOMPSON—FORT BEND COUNTY

Whitmore, Cullen & West 2 1365
Edwards & Riggins, Gulf Prod. Co. 3 ..1360
F. I. Booth, Humble O. & R. Co. and Gulf Prod. Co. 16-A 1200
T. R. Booth, Humble O. & R. Co. and Gulf Prod. Co. 7 1200
T. R. Booth, Humble O. & R. Co. and Gulf Prod. Co. 8 1290
Lockwood, Humble O. & R. Co. and Gulf Prod. Co. 14 ..... abd
Lockwood & Sharp, Humble O. & R. Co. and Gulf Prod. Co. 19-A 480
Lockwood & Sharp, Humble O. & R. Co. and Gulf Prod. Co. 14-B 1200
Meyers, Humble O. & R. Co. and Gulf Prod. Co. 8 1200

Wells completed 9
Production 9205
Abandoned 1

WEST COLUMBIA—BRAZORIA COUNTY

Abrams, Texas Co. 5 ..... abd

Miscellaneous Texas

BRAZORIA COUNTY

Pledger-Hunt, Danciger O. & R. Co. 2.. gas
F. Moore Sur., Moore, Tri-tin Oil Co. 1.. abd

COLORADO COUNTY

I.&G.N. Sur. No. 42, McLane, Humble O. & R. Co. 1 ..... abd
I.&G.N. Sur. No. 47, Ream, Plymouth Oil Co. 1 400

HARRIS COUNTY

Tomball-Martens, Magnolia Pet. Co. 1.. abd
Jessie Denton Sur., Kirmayer, Sinclair Prairie Oil Co. 1 ..... abd
John Dickerson Sur., Grissom, Webster Oil & Mineral Co. 1 ..... abd

JACKSON COUNTY

Ganado-Maurits, Turnbull et al 1 ..... abd

LIBERTY COUNTY

Wm. Harris Sur., McNair, Hamill Drlg. Co. 1 ..... abd

MATAGORDA COUNTY

Shepherds Mott-Hawkins, Cockburn Oil Corp. 5 ..... abd

MONTGOMERY COUNTY

Wm. Barker Sur., Salis, C. J. Daniels 1 abd
Hosea De La Garza Sur., Foster, Sutton-Hawkins 1 ..... abd

POLK COUNTY

D. B. McCombs Sur., Texas Long Leaf. Boone, Clarke & Boone 1 ..... abd
Thomas Colville Sur., Alabama Indian Reservation, Carl B. King Drlg. Co. 1 abd
James Stephenson Sur., Kirby, Kirby Pet. Co. 1 ..... abd

SAN JACINTO COUNTY

Bennett, Darby Jones & McHee Drlg. Co. 1 ..... abd

TRINITY COUNTY

Wm. Beardsley Sur., Gibson, L. G. Priest 1 ..... abd

WASHINGTON COUNTY

Isaac Lee Sur., Chadwick, Cline, Taylor et al 1 ..... abd

Wells completed 18
Production 400
Abandoned 16
Gas 1

South Louisiana Fields

EAST HACKBERRY—CAMERON PARISH

Hanszen, Calcasieu Oil Co. 3 1440
Irwin, Gulf Ref. Co. 11 100

Wells completed 2
Production 1540

IOWA—CALCASIEU PARISH

Gilison, Magnolia Pet. Co. 1 1470

JENNINGS—ACADIA PARISH

Houssierre-Latrielle, Yount Lee Oil Co. 13 ..... abd

LAKE BARRE—TERREBONNE COUNTY

State-Lake Barre, Texas Co. 18 ..... abd

LAKE WASHINGTON—PLAQUEMINES PARISH

Cockrell-Moran, Humble O. & R. Co. 8.. 125

PORT BARRE—ST. LANDRY PARISH

Botney Bay, Texas Co. 15 ..... abd

SULPHUR—CALCASIEU PARISH

Fee, Union Sulphur Co. 737 4300
Fee, Union Sulphur Co. 780 785

Wells completed 2
Production 5085

VINTON—CALCASIEU PARISH

Gray, Marrs McLean 15 25

Miscellaneous Louisiana

BEAUREGARD PARISH

Sec. 26-2s-19w, Long Bell, Acme Oil Co. 1 ..... abd

EVANGELINE PARISH

Sec. 23-4s-1w, Samuel Haas, O'Brien Bros. 1 ..... abd

LAFOURCHE PARISH

Chacahoula—Sanbury, V. N. Miller 1 .. abd

PLAQUEMINES PARISH

Garden Island—Garden Island, Texas Co. 8 ..... abd
Lake Hermitage—LaFourche Levee, Texas Gulf Sulphur Co. 2 ..... abd

Wells completed 5
Abandoned 5

Louisiana Fields

Summary of Field Operations

	Comp.	Prod.	Dry Gas*	Rigs	Drlg.	Ttl.
Avoyelles	0	0	0	0	1	1
Beauregard	3	0	3	0	0	1
Bienville	1	0	1	0	0	3
Bossier	0	0	0	0	1	5
Caddo	3	0	0	3	6	4
Caldwell	0	0	0	0	0	1
Catahoula	1	0	1	0	0	1
Clai borne	1	0	1	0	0	2
De Soto	1	0	1	0	2	15
Grant	0	0	0	0	1	1
Jackson	0	0	0	0	0	1
Morehouse	0	0	0	0	1	6
Natchitoches	0	0	0	0	1	5
Ouachita	1	0	0	1	1	4
Rapides	1	0	1	0	3	2
Red River	2	20	1	0	1	1
Sabine	9	70	7	0	10	41
Tensas	0	0	0	0	0	1
Union	0	0	0	0	0	2
Vernon	0	0	0	0	0	2
Webster	1	0	1	0	2	0
West Carroll	0	0	0	0	0	1
Total June	24	90	17	4	30	100
Total May	37	1,310	26	3	68	70
Difference	13	1,220	9	1	38	30

*Gas production: Caddo, 27,000,000 ft.; Ouachita, 850,000 ft.; total, 27,850,000 ft.

WELLS COMPLETED

BEAUREGARD PARISH

26- 2-10 Long-Bell Lumber Co., Acme Oil Co. 1 ..... dry
6- 3-10 S. T. Roberts, Trapp & Turnbow 1 ..... dry
26- 2-10 Long-Bell Lumber Co., Trapp Oil Syndicate 1 ..... dry

BIENVILLE PARISH

28-16-9 Lawson, Texana Oil Co. 1 .. dry

CADDO PARISH

4-18-16 Winters, Louana Oil & Gas Co. 1 ..... gas
13-20-15 Youree-Randolph, Simplex Oil Co. 8 ..... gas
32-23-16 Lake Holt, United Gas Public Service Co. 1 ..... gas

Gas production 27,000,000

CATAHOULA PARISH

2- 9-6 Louisiana Central Lumber Co., Geo. Greer et al 1 ..... dry

DE SOTO PARISH

32-11-11 Rambin, Mrs. A. L. Ibach 1.. dry

CLAIBORNE PARISH

21-22-7 Temple, United Gas Public Co. 1 ..... dry

OUACHITA PARISH

14-18-4 Van Horn, Inabnet & Pipes 2 gas

Gas production 850,000

RED RIVER PARISH

27-13-11 La. Pecan Orchard Co., Edwards & Clay 1 20
3-12-10 T. J. Wilkinson, W. W. Smith, Tr., 1 ..... dry

RAPIDES PARISH
13- 5-2e Lee Lumber Co., Smith et al 1 dry
SABINE PARISH
2- 7-13 Martinez, Baird Brothers 3 ... 40
16- 7-11 Ervin & Bishop, Byers et al 1 dry
36- 9-14 Bowman-Hicks, Chief Oil Co. 1 ... dry
18- 7-10 C. Alford, Craft & Primm 1.. 30
28- 8-11 Lites, Graham Prod. Co. 1-B (derrick) ... abd
34- 8-12 Shufford, E. D. Holcomb 2... dry
15- 7-11 Garner, E. F. Neely 1 ... dry
13- 7-11 Lafitte, Scully & Beach 3 ... dry
33- 8-10 A. Stoker, Skidmore & Mize 1 (junked) ... dry
28- 8-11 Lites, State Prod. Co. 1 ... dry
WEBSTER PARISH
35-22-10 Good Pine Lumber Co., Dorcheat Synd. 1 ... dry

Arkansas Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Cleburn	1	0	1	0	0	0	1
Cleveland	0	0	0	0	1	0	1
Columbia	0	0	0	0	0	3	3
Desha	0	0	0	0	0	1	1
Hempstead	0	0	0	0	1	1	2
Jefferson	0	0	0	0	1	1	2
Lafayette	1	0	1	0	0	2	2
Lincoln	1	0	1	0	0	0	0
Little River	1	0	1	0	0	3	3
Miller	1	0	1	0	3	12	15
Nevada	0	0	0	0	0	1	1
Ouachita	0	0	0	0	0	2	2
Prairie	0	0	0	0	0	1	1
Sevier	0	0	0	0	0	1	1
Union	0	0	0	0	1	3	4
Woodruff	1	0	1	0	0	0	0
Yell	0	0	0	0	0	1	1
Total June	6	0	6	0	7	32	39
Total May	6	150	5	0	11	31	42
Difference	0	150	1	0	4	1	3

WELLS COMPLETED
CLEBURN COUNTY
34-11- 9 Doniphan Lumber Co., Frank S. Craver et al 2 ... dry
LAFAYETTE COUNTY
2-19-26 Robert Adams, Carroll et al 1. dry
LINCOLN COUNTY
5- 8- 7 McGehee Planting Co., Lawrence B. Cooke 1 ... dry
LITTLE RIVER COUNTY
25-12-32 Taafe, Howell & Greer 1 ... dry
MILLER COUNTY
32-15-26 B. F. Smith, Baker & McMurray 1 (derrick) ... abd
14-16-27 Jones, Stephens, Byers & Sartan 1 ... dry
WOODRUFF COUNTY
7-5n-2w Rosser, B. F. Thompson 1 .. dry

Mississippi Fields

Summary of Field Operations

	Comp.	Prod.	Dry	*Gas	Rigs	Drg.	Ttl.
Amite	0	0	0	0	0	1	1
Clarke	0	0	0	0	0	1	1
Covington	0	0	0	0	0	2	2
George	1	0	1	0	0	0	0
Hinds	0	0	0	0	1	2	3
Jones	0	0	0	0	0	1	1
Lamar	0	0	0	0	1	1	2
Monroe	1	0	1	0	0	0	0
Newton	0	0	0	0	0	1	1
Pearl River	0	0	0	0	1	0	1
Rankin	1	0	0	1	0	4	4
Scott	0	0	0	0	0	1	1
Sunflower	1	0	1	0	0	0	0
Walthall	0	0	0	0	1	0	1
Warren	0	0	0	0	0	1	1
Webster	0	0	0	0	0	1	1
Wilkinson	0	0	0	0	0	1	1
Total June	4	0	3	1	4	17	21
Total May	3	0	1	2	6	14	20
Difference	1	0	2	1	2	3	1

*Gas production: Rankin, 33,511,000 ft.

WELLS COMPLETED
GEORGE COUNTY
25-15- 6 Luce Packing Co., United Gas Public Service Co. 1 ... dry
MONROE COUNTY
22-15-17 Rye, P. J. McAlpine 1 ... dry
RANKIN COUNTY
6- 5-2e Rice, Julian P. Alexander 1 .. gas
Gas production ... 33,511,000
SUNFLOWER COUNTY
26-23-4 Richettem Westbrook-Thompson Holding Co. 1 ... dry

Alabama Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Baldwin	0	0	0	0	0	1	1
Cullman	0	0	0	0	0	1	1
Lamar	0	0	0	0	0	1	1
Escambia	0	0	0	0	0	1	1
Total June	0	0	0	0	0	4	4
Total May	1	0	1	0	0	4	4
Difference	1	0	1	0	0	0	0

East Texas Border Counties

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Bowie	0	0	0	0	0	1	1
Cass	0	0	0	0	0	1	1
Harrison	0	0	0	0	0	1	1
Marion	0	0	0	0	0	3	3
Panola	0	0	0	0	0	3	3
Red River	0	0	0	0	1	2	3
Shelby	0	0	0	0	0	2	2
Total June	0	0	0	0	1	14	15
Total May	4	0	4	0	1	14	15
Difference	4	0	4	0	0	0	0

Eastern Fields

Summary of Completed Work

Field—	Comp.	Prod.	Dry	Gas
Bradford	37	40	0	0
Allegany	6	20	0	0
Venango-Clarion	7	8	4	2
Butler-Armstrong	4	2	2	1
Middle Field	2	2	0	0
N. Y.-Penna. Gas	5	0	2	2
S. W. Penna.	4	15	3	0
Southeast Ohio	11	53	3	2
West Virginia	19	51	4	11
Total June	95	191	17	19
Total May	74	303	13	16
Difference	21	112	4	3

Summary of Work Under Way

Field—	Rigs	Drg.	Ttl.
Bradford	7	28	35
Allegany	1	6	7
Venango-Clarion	0	5	5
Butler-Armstrong	0	5	5
Middle Field	0	2	2
N. Y.-Penna. Gas	5	33	38
S. W. Penna.	2	6	8
Southeast Ohio	9	18	27
West Virginia	25	54	79
Total June	49	157	206
Total May	52	126	178
Difference	3	31	28

WELLS COMPLETED
BUTLER-ARMSTRONG
Fee, Schubert et al 1 ... 2
Seen, Sam Steen & Co. 2 ... dry
Meeder, Curry Bros. 1 ... gas
Dodds, McKnight & Co. 1 ... dry
Wells completed ... 4
Production ... 2
Dry ... 2
Gas ... 1
MIDDLE FIELD
Irvin, Myers & Peterson 25 ... 1
Lot 73, Simon Streich & Sons 4 ... 1
Wells completed ... 2
Production ... 2
N. Y.-PENNA. GAS
French, G. K. Rodgers 1 ... dry
Tochy, Fisher, Agnew et al ... dry
Cook, John Carpenter 1 ... gas
Black, Pennsylvania Nat. Gas Co. ... dry
Finn, Agnew & Fisher 1 ... gas
Wells complete1 ... 5
Dry ... 3
Gas ... 2
BRADFORD
Completions on lines of Bradford Transit Co. ... 33
Bingham 422, G. C. Grow 25 ... 1
Fee, Dallas Oil Co. 107 ... 2
Corwin, Corwin & Gallagher 22 ... 2
Bingham 268, Brink & Brink 66 ... 2
Wells completed ... 27
Production ... 40
ALLEGANY
Completions on lines of Bradford Transit Co. ... 3
Fee, Ryder, Scott Co. ... 3
Fee, Joseph Sutter ... 1
Herrick, N. V. V. Franchot ... 3
Wells complete1 ... 6
Production ... 20
VENANGO-CLARION
Fee, Fryburg Motor Co. 3 ... gas
Fee, Fryburg Motor Co. 4 ... dry
Clark, Root and George Foggan 45 ... 1
Heeter, Master and Hess 11 ... gas
Rickenbrode, M. M. Master 16 ... 1
Henry, Dr. I. D. Kahle 1 ... 6
Kahle, A. D. Shorts et al 3 ... dry
Wells completed ... 7
Production ... 8
Dry ... 2
Gas ... 2
SOUTHWEST PENNSYLVANIA
WELLS COMPLETED
ALLEGHENY COUNTY
Grubbs, Goettman & Co. 1 ... dry
BUTLER COUNTY
Domart, W. C. Goettman & Co. 1 ... dry
WASHINGTON COUNTY
Arnold, Reed & Co. 1 ... dry
Moore, E. H. and J. B. Tague 3 ... 15
SOUTHEAST OHIO
ATHENS COUNTY
Sunday Creek Coal Co., Ohio Fuel Gas Co. 5,727 ... gas
HOCKING COUNTY
Bay, Albert Keich et al 1 ... dry
LICKING COUNTY
Baker, The Wehrle Co. 1 ... gas
Hoyt, Ridgeway et al 1 ... 3
MEDINA COUNTY
Falconer, C. B. Wood 7 ... 5
Basom, G. W. Spohn 1 ... 2
MEIGS COUNTY
Meigs County Children Home, A. N. Bengie 1 ... gas
MORGAN COUNTY
Starrett, R. C. Whitener 13 ... dry
TUSCARAWAS COUNTY
Hursew, Hopewell Fuel Gas Co. 1 ... 40
MONROE COUNTY
Gibson, E. G. Cunningham et al 1 ... dry
Hoyt, Ridgeway et al 1 ... 3
WEST VIRGINIA
WELLS VOMPLETED
BOONE COUNTY
Lewis heirs, Cambridge Gas Co. 5 ... gas
Pocatello C. & C. Co., Pure Oil Co. 1 ... gas
Cole & Crane, Pond Fork O. & G. Co. 14 dry
Huntington Sand & Gravel, Eureka Gas Co. 1 ... gas
Gwinn Bros. & Co. Gwinn Bros. & Co. 1 gas
CALHOUN COUNTY
Kelley, C. B. Low et al 1 ... gas
Webb, Chemical Oil Co. 2 ... gas
Jarvis, C. W. McCall et al 1 ... dry
Houghton, C. A. Jarvis et al 1 ... gas
RITCHIE COUNTY
Markey, H. N. Rinehart 1 ... dry
Ball, Richards Farm Oil Co. 1 ... 25
Adams, C. F. Egan et al 1 ... gas
ROANE COUNTY
Kendall, Geo. E. Smith et al 2 ... gas
Knopp, Reedy Oil & Gas Co. 2 ... 15
Dairymple, J. D. Holmes et al 1 ... 1
WAYNE COUNTY
Watts, W. Va. Gas Corp. 1 ... gas
WOOD COUNTY
Webber, C. T. Smith 1 ... dry
Castell, Charles Smith 5 ... 10
Locker, Warren Reed et al 1 ... gas

Rocky Mountain Area

NEW MEXICO

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
De Basa	0	0	0	0	0	1	1
Eddy	0	0	0	0	2	8	11
Lea	1	129	0	0	2	5	7
McKinley	0	0	0	0	0	7	7
San Juan	0	0	0	0	1	11	12
San Miguel	0	0	0	0	0	2	2
Santa Fe	0	0	0	0	0	1	1
Valencia	0	0	0	0	0	2	2
Miscellaneous.	0	0	0	0	2	12	14
Total June.	1	129	0	0	8	51	59
Total May..	8	14,030	2	0	5	46	51
Difference .	7	13,901	2	0	3	5	8

WELLS COMPLETED
5-26-37 Shepard, Texas Co. 1-B ... 129

COLORADO

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Boulder	0	0	0	0	0	4	4
Elbert	0	0	0	0	0	4	4
Fremont	1	0	1	0	0	1	1
Jackson	0	0	0	0	0	5	5
La Plata	1	0	1	0	1	1	2
Larimer	0	0	0	0	0	9	9
Moffat	0	0	0	0	1	4	5
Morgan	0	0	0	0	1	1	2
Rio Blanco	0	0	0	0	0	2	2
Routt	0	0	0	0	1	1	2
Weld	1	0	1	0	0	3	3
Miscellaneous.	0	0	0	0	0	15	16
Total June.	3	0	3	0	4	50	54
Total My..	0	0	0	0	5	56	61
Difference .	3	0	3	0	1	6	7

WELLS COMPLETED
24-8n-59 Anthes, Continental Oil Co. 1 dry
29-33-13 Doescher, J. W. Irwin & Co. 1 dry
21-26-69 Mojada, Dr. T. A. Davis 7 .. dry
Wells completed ... 3
Dry and abandoned ... 3

WYOMING

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Big Horn	0	0	0	0	1	6	1
Carbon	0	0	0	0	1	4	5
Converse	0	0	0	0	0	5	5
Crook	0	0	0	0	0	5	5
Fremont	0	0	0	0	0	5	5
Hot Springs	0	0	0	0	1	3	4
Natrona	1	15	0	0	2	9	11
Sweetwater	0	0	0	0	2	6	8
Sublet	0	0	0	0	1	3	4
Uinta	1	0	1	0	0	4	4
Weston	0	0	0	0	0	6	6
Miscellaneous.	0	0	0	0	2	7	9
Total June.	2	15	1	0	10	63	73
Total May..	4	50	1	1	12	57	69
Difference .	2	35	0	1	2	6	4

WELLS COMPLETED
2-14-11S Morrison, A. R. Johnson 1 ... dry
12-33-83 Empire State Oil Co. 17 ... 15
Wells completed ... 2
Production ... 15
Dry and abandoned ... 1

MONTANA

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Carbon	0	0	0	0	0	6	6
Glacier	2	584	0	0	2	11	13
Liberty	0	0	0	0	0	2	2
Teton	0	0	0	0	0	3	3
Toole	0	0	0	0	0	4	4
Miscellaneous.	0	0	0	0	1	10	11
Total June.	2	584	0	0	3	36	39
Total May..	2	195	0	0	4	34	38
Difference .	0	389	0	0	1	2	1

WELLS COMPLETED
24-34-6w Miller, R. C. Tarrant 1 ... 450
14-34-6w Haglund, Sr. Dakota-Montana Oil 1 ... 134
Wells completed ... 2
Production ... 584

UTAH

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Total June	2	2	1	0	1	16	17
Total May	0	0	0	0	1	15	16
Difference	2	2	1	0	0	1	1

WELLS COMPLETED
13-41-12w Wlaklin Pet. Co. 6 ... dry
12-41-12w Utacal Oil Co. 18 ... 2
Wells completed ... 2
Production ... 2

Central Ohio Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Ashland	0	0	0	0	1	1	2
Lorain	1	0	1	0	0	3	3
Medina	3	25	1	0	1	2	3
Knox	1	0	0	1	1	1	2
Summitt	1	0	0	1	1	1	2
Fairfield	1	0	0	1	0	0	0
Coshocton	0	0	0	0	0	4	4
Licking	2	0	0	2	1	4	5
Richland	0	0	0	0	0	1	1
Muskingum	1	0	0	1	0	4	4
Athens	2	0	1	1	2	7	9
Tuscarawas	1	3	0	0	1	3	4
Holmes	0	0	0	0	0	1	1
Trumbull	0	0	0	0	0	1	1
Portgage	0	0	0	0	0	2	2
Stark	6	0	2	4	4	23	27
Belmont	4	0	2	2	2	4	6
Guernsey	3	0	1	2	0	3	3
Crawford	0	0	0	0	0	1	1
Gallia	0	0	0	0	0	1	1
Scioto	0	0	0	0	0	1	1
Pike	0	0	0	0	0	2	2
Carroll	0	0	0	0	0	4	4
Columbia	0	0	0	0	0	1	1
Total June	26	28	8	15	14	75	89
Total May	14	30	4	8	24	61	85
Difference	12	2	4	7	10	14	4

WELLS COMPLETED
LORAIN COUNTY
Eaton—R. E. Ives, Ohio Fuel Gas 1-5,720 dry
MEDINA COUNTY
Chatham—George Packard, Edson & Co. 20 ... dry
Harriaville—C. B. Woods, C. B. Woods 5 15
Litchfield—Clyde Bason, Spohn & Co. 4 16
Wells completed ... 3
Production ... 25
Dry ... 1
KNOX COUNTY
Monroe—H. E. Perkins, H. E. Perkins & Co. 1 ... gas
SUMMITT COUNTY
Greene—Everett Bexler, East Ohio Gas 2 gas
FAIRFIELD COUNTY
Pleasants—H. & G. Stalder, City Natural Gas Works 2 ... gas
LICKING COUNTY
Newton—Ray Gardner, G. F. Early & Co. 2 ... gas
Granville—Gail Baker, Wehrle Gas 1 .. gas
Wells completed ... 2
Gas ... 2
MUSKINGUM COUNTY
Brush Creek—Elza Fountain, Fritz Oil & Gas 1 ... gas
ATHENS COUNTY
Berne—S. L. Glover, Clark, Talbott & Co. 1 ... dry
G. W. Armstrong, Williams Bros. 1 .. gas
Wells completed ... 2
Gas ... 1
Dry ... 1
TUSCARAWAS COUNTY
Washington—G. H. Hursey, Hopewell Oil & Gas 1 ... 3
STARK COUNTY
Jackson — The Hoover Co., East Ohio Gas 1 ... dry
Leonard Stockert, East Ohio Gas 1 .. dry
Plain—Orchard Acres, The Kemrow Co. 1 ... gas
J. S. Unger, Brendal Producing Co. 1. gas
M. M. Vivenour, Brendal Producing Co. 1 ... gas
H. G. McDowell heirs, East Ohio Gas 1 gas
Wells completed ... 6
Gas ... 4
Dry ... 2
BELMONT COUNTY
Somerset—Chas. McLaughlin, A. C. Peters & Co. 3 ... gas
Flushing — J. C. Dunlap, Schaffer & Workman 1 ... dry
Union—James E. Snape, Robert Morgan & Co. 1 ... gas
Fred Jones, O. K. Oil & Gas 1 ... dry
GUERNSEY COUNTY
Adams—W. H. Dike, McLaughlin & Co. 2 gas
Westland—H. H. and May Turner, C. C. Wharton 2 ... gas
Jackson—Ruby-Shriver, Chas. Smith & Co. 1 ... dry
Wells completed ... 3
Gas ... 2
Dry ... 1

Lima Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Wood	1	0	0	0	0	3	3
Allen	1	2	0	0	0	2	2
Auglaize	0	0	0	0	0	2	2
Mercer	0	0	0	0	0	2	2
Sandusky	0	0	0	0	1	1	2
Lucas	0	0	0	0	0	1	1
Ottawa	0	0	0	0	0	1	1
Seneca	0	0	0	0	0	3	3
Wyandot	7	195	0	3	1	10	11
Logan	1	0	0	1	0	0	0
Marion	0	0	0	0	0	1	1
Total June	9	197	0	4	2	26	28
Total May	6	453	0	1	2	20	22
Difference	3	256	0	3	0	6	6

WELLS COMPLETED
HANCOCK COUNTY
Allen—J. A. Franks, Ohio Oil 4 ... abd
James Steen, Ohio Oil 6, 8, 10, 12 .... abd
Abandoned ... 5
ALLEN COUNTY
Bath — C. A. Hoover, C. A. and F. J. Peavy 7 ... 3

SANDUSKY COUNTY
Scott—M. Immel, H. G. Johnson & Co. 1, 2, 3, 4, 5, 6 ..... abd
Washington—J. Fox, Zorn-Horning Co. 3 abd
John Noss, Zorn-Horning Co. 7 ..... abd

Abandoned 8

WYANDOT COUNTY
Crane—Geo. Koechler, O. A. Humbarger 1 ..... gas
M. Brillhardt, Jones & Coyle 3 20
Mary Huffman, Kennedy & Temple 1 20
Louis Brandt heirs, Keiner & Co. 1 .. 150
S. E. Tschanen, Clarence Donnell 1 .. gas
Frank Benner, Cane Twp. Oil & Gas 1 5
Crawford—Arthur Ruehle, O'Neil & Co. 1 ..... gas

Wells completed 7
Production 195
Gas 3

LOGAN COUNTY
Rush Creek—B. Porter, Simms Oil & Gas 3 ..... gas

Michigan Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Muskegon	0	0	0	0	4	7	11
Isabella	1	800	0	0	1	12	14
Midland	10	2,125	0	0	12	34	46
Clare	0	0	0	0	3	1	4
Oceana	1	0	1	0	3	10	13
Lake	0	0	0	0	0	2	2
Iosco	0	0	0	0	1	0	1
Gratiot	0	0	0	0	1	1	2
Cass	0	0	0	0	2	1	3
Kent	0	0	0	0	1	2	3
Emmett	0	0	0	0	0	1	1
Leelanau	0	0	0	0	1	0	1
Saginaw	0	0	0	0	1	1	2
Montmorency	0	0	0	0	3	0	3
Sanilac	0	0	0	0	3	0	3
Newaygo	0	0	0	0	0	3	3
Shiawassee	0	0	0	0	1	3	4
Allegan	0	0	0	0	0	3	3
Livingston	0	0	0	0	1	2	3
Oscola	0	0	0	0	1	0	1
St. Clair	0	0	0	0	1	0	1
Alpena	0	0	0	0	1	0	1
Cheboygan	0	0	0	0	0	1	1
Oakland	0	0	0	0	0	1	1
Gennessee	0	0	0	0	1	0	1
Mecosta	0	0	0	0	0	1	1
St. Joe	0	0	0	0	1	0	1
Ogemaw	1	0	1	0	0	0	0
Jackson	0	0	0	0	0	1	1
Antrim	0	0	0	0	1	0	1
Total June	13	2,925	2	0	44	88	132
Total May	22	5,100	3	0	47	71	118
Difference	9	2,175	1	0	3	17	14

WELLS COMPLETED
ISABELLA COUNTY
Vernon—E. L. Russell, Meridian Oil & Gas 2 800

MIDLAND COUNTY
Greendale—Chas. D. Mullett & Co., Pure Oil 8 35
Geo. Harnick, Columbia Oil & Gas 6.. 350
Tope Talbot, Hirzel Leland Dev. Co. 2 100
Adrian Steed, Theodore Oil 1 150
H. J. Oldham, W. A. Robinson 1 50
Porter—J. L. Miller Est., Sun Oil 1 40
Sam Walley, Strange Oil & Gas 1 95
Mina C. Narmore, Pure Oil 2 150
Clarence L. Baxter, Fred W. Turner 1 275
Geo. L. Huff, Pure Oil 1 800

Wells completed 10
Production 2125

OCEANA COUNTY
Perry—Frank Hallock, Old Dutch Oil & Gas 1 ..... dry

OGEMAW COUNTY
West Branch—Mills Estate, Pure Oil 1.. dry

Indiana Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Gibson	1	0	0	1	1	2	3
Pike	6	0	2	4	0	5	5
Sullivan	0	0	0	0	0	4	4
Daviess	0	0	0	0	0	2	2
Warrick	0	0	0	0	0	1	1
Vigo	0	0	0	0	0	2	2
Spencer	2	10	1	0	0	2	2
Perry	2	10	0	0	0	5	5
Knox	0	0	0	0	0	3	3
Harrison	0	0	0	0	0	3	3
Hamilton	0	0	0	0	0	2	2
Dearborn	0	0	0	0	0	1	1
Greene	0	0	0	0	0	2	2
Switzerland	0	0	0	0	0	2	2
St. Joe	0	0	0	0	0	1	1
Rush	0	0	0	0	0	2	2
DeKalb	0	0	0	0	0	1	1
Pulaski	0	0	0	0	0	1	1
Elkhart	0	0	0	0	1	0	1
Johnson	0	0	0	0	0	1	1
Koscusko	0	0	0	0	0	1	1
Stark	0	0	0	0	0	2	2
Jasper	0	0	0	0	0	1	1
Martin	0	0	0	0	0	1	1
Huntington	0	0	0	0	0	2	2
Tippecanoe	1	0	1	0	0	0	0
Porter	0	0	0	0	0	1	1
Vanderburg	3	45	0	0	0	2	2
Randolph	0	0	0	0	0	1	1
Total June	15	65	4	5	2	53	55
Total May	7	38	0	5	1	57	58
Difference	8	27	4	0	1	4	3

WELLS COMPLETED
GIBSON COUNTY
Columbia—G. C. Sampley, Knox Engineering Corp. 2 ..... gas
PIKE COUNTY
Washington—Earl E. Reed, Tressler, Barnett & Co. 1 ..... dry
Chas. E. Schaffer, Chas. C. Taliaferro Jr. 1 ..... dry
George Leighty, Harry N. Bell & Co. 1 gas
H. N. Craig, Harry N. Bell & Co. 4 .. gas
Helen Smith, Claude E. Noble 2 ..... gas
W. H. Smith, Vern Burden 3 ..... gas
Madison—John A. Sutton, Ohio Oil 1, 4. abd

Wells completed 6
Gas 4
Dry 2
Abandoned 2

SPENCER COUNTY
Ohio—Raymond Bretz, E. M. Treat & Co. 1 ..... dry
Huff—F. W. Grass, Santa Fe Oil Co. 1 . 10

Wells completed 2
Production 10
Dry 1

PERRY COUNTY
Clark—Perry Andrews, Anderson Creek Oil & Gas 8 5
Perry Andrews, Anderson Creek Oil & Gas 9 5

Wells completed 2
Production 10

TIPPECANOE COUNTY
Tippecanoe—Methodist Church lot, Cato-Smith Oil Corp. 1 ..... dry

VANDERBURG COUNTY
Center—Young, Maxwell Petroleum Co. 1 15
G. Heilman, Snowden-McSweeney Oil 1 20
Perry—Nick Bassmeier, L. R. Henley 1 . 10

Wells completed 3
Production 45

Kentucky Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Ohio	2	50	1	0	0	11	11
Daviess	10	205	6	0	0	15	15
Hancock	1	60	0	0	0	6	6
McLean	2	12	0	0	0	6	6
Henderson	0	0	0	0	0	1	1
Muhlenburg	0	0	0	0	0	2	2
Taylor	0	0	0	0	1	0	1
Madison	0	0	0	0	0	1	1
Bath	0	0	0	0	0	1	1
Breckenridge	0	0	0	0	0	1	1
Greene	0	0	0	0	1	0	1
Edmonson	0	0	0	0	0	1	1
Todd	0	0	0	0	0	1	1
Grayson	0	0	0	0	1	1	2
Lee	0	0	0	0	0	1	1
Knox	0	0	0	0	0	1	1
Warren	1	0	1	0	0	2	2
Allen	2	0	2	0	1	1	2
Total June	18	327	10	0	4	52	56
Total May	18	280	9	0	2	51	53
Difference	0	47	1	0	2	1	3

WELLS COMPLETED
OHIO COUNTY
Barrett Hill—L. E. Morris, Creek Drilling Co. 12 50
Whittaker—Sam Dickens, Vickers & Co. 1 ..... dry

Wells completed 2
Production 50
Dry 1

DAVIESS COUNTY
Owensboro—J. W. Richardson, Tracey Supply Co. 4 ..... dry
J. W. Richardson, Tracey Supply Co. 5 15
E. Ambrose, Strouse & Co. 1 ..... dry
Ace Bratcher, Hupp, French & Co. 5 . 144
A. Ambrose, Ira Huff & Co. 1 30
R. E. Jackson, Brenner & Adams 1 .. dry
Cline Hedden, Snowden & McSweeney 1 dry
S. S. Malley No. 2, A. D. Schaffer 1.. 16
M. Duncan, Mecca Oil 1 ..... dry
Dr. Kirk, F. Fox & Co. 1 ..... dry

Wells completed 10
Production 205
Dry 6

HANCOCK COUNTY
Pellville—Elec Jackson 103 a., Hupp, Duff & Co. 10 60
McLEAN COUNTY
Calhoun—Atherton heirs, Mike Callas & Co. 3 10
S. B. McNanama, McLean Development Co. 4 2

Wells completed 2
Production 12

WARREN COUNTY
Bowling Green—Chas. Cox, Murphy & Wright 1 ..... dry
ALLEN COUNTY
Scottsville—E. B. Mayhew, trustee, 2. H. B. Bastress & Co. 1 ..... dry
E. B. Mayhew, H. B. Bastress & Co. 1 dry

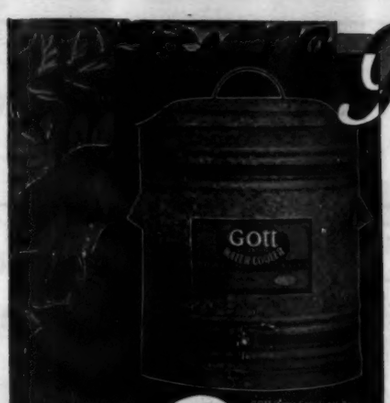
Wells completed 2
Dry 2

Illinois Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Rigs	Drg.	Ttl.
Clark	0	0	0	0	3	3
Coles	0	0	0	0	1	1
Crawford	0	0	0	1	2	3
Lawrence	1	10	0	0	0	0
Boone	0	0	0	0	1	1
Jefferson	0	0	0	0	1	1
Jasper	0	0	0	0	1	1
Clinton	0	0	0	0	1	1
Bond	1	0	1	0	0	0
Madison	0	0	0	0	1	1
Marion	0	0	0	0	2	2
Total June	2	10	1	1	13	14
Total May	0	0	0	1	11	12
Difference	2	10	1	0	2	2

WELLS COMPLETED
LAWRENCE COUNTY
Bridgeport—F. J. Piper, Big Four Oil & Gas 2 10
BOND COUNTY
LaGrange—John W. Merry, Bachelor & Co. 1 ..... dry



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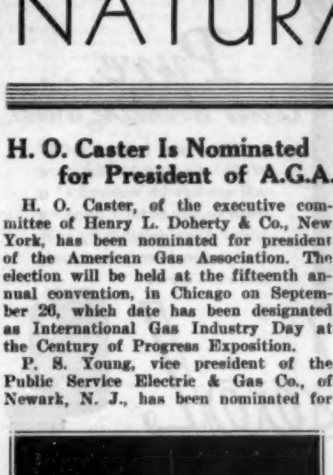
READ THE CLASSIFIED BARGAINS ON PAGE 71

NATURAL GAS DEVELOPMENTS

H. O. Caster Is Nominated for President of A.G.A.

H. O. Caster, of the executive committee of Henry L. Doherty & Co., New York, has been nominated for president of the American Gas Association. The election will be held at the fifteenth annual convention, in Chicago on September 26, which date has been designated as International Gas Industry Day at the Century of Progress Exposition.

P. S. Young, vice president of the Public Service Electric & Gas Co., of Newark, N. J., has been nominated for



H. O. CASTER

vice president, and William J. Welsh, president of the New York & Richmond Gas Co., Staten Island, for treasurer.

The following have been nominated for directors for two-year terms: H. C. Abell, president, National Power & Light Co., New Orleans, La.; Walter C. Beckjord, vice president and general manager, Boston Consolidated Gas Co.; Howard Bruce, chairman, Bartlett Hayward Co., Baltimore, Md.; J. S. DeHart, Jr., president, Isbell-Porter Co., Newark; F. C. Freeman, president, Providence Gas Co.; R. W. Gallagher, president, East Ohio Gas Co., Cleveland, Ohio; C. A. Lauer, president, Philadelphia Gas Works; B. J. Mullaney, vice president, Peoples Gas Light & Coke Co., Chicago; and Herman Russell, president, Rochester Gas & Electric Corp., Rochester, N. Y.

NEW GAS AREA IN N. Y.

HORNELL, N. Y., July 15.—Indications that a new field may be opened up to the production of natural gas in paying quantities was revealed when the Gas States Corp. of New Jersey struck a 200,000-foot daily flow on the Jacob Magin farm in South Dansville, Steuben County.

The corporation recently obtained leases on 12,000 acres in the vicinity of the Magin test well. The development is 50 miles west of the productive Wayne Field and about the same distance northwest of the Wellsville and Bolivar gas and oil region. The flow was struck as the drill began to penetrate the cap rock over the Oriskany sand, the gas-producing strata.

Report on Production and Consumption of Natural Gas in Texas Just Issued

AUSTIN, Tex., July 17.—The number of domestic consumers of natural gas in Texas dropped from 523,772 in 1931 to slightly over 502,476 in 1932, and of industrial users of natural gas from 5,678 to slightly over 5,249 in 1932, according to the annual report of the gas utilities division, Texas Railroad Commission, just being completed. Statistics of the Texas Pacific Coal & Oil Co. were lacking in the 1932 totals.

A total of 36,813,426,000 feet was sold for domestic use in addition to that of the Texas Pacific company during 1932, and 99,098,324,000 feet for industrial uses. In 1931, the consumption in these two classifications was 34,630,516,000 and 81,757,475,000 feet.

The average retail prices for this domestic gas ranged from 24 cents to $1.09 but with higher rates for the first 1,000 feet in many cases running to $1.25 and $1.50. The average retail prices for industrial gas ranged from 8 to 37 cents.

The gas was bought or produced on wholesale prices ranging from 2 to 6 cents, according to production tax reports in the comptroller's office, not covered by the Railroad Commission report.

The consolidated income account report of the gas companies selling gas in Texas showed total receipts of $78,416,637 for 1932, and total expenditures of $75,322,356.

A total of $7,180,872 was paid in dividends by the companies during the year. Some of the larger dividend items were:

United Gas Public Service Co.	$2,990,997
San Antonio Public Service Co.	675,000
People's Gas Co.	152,000
Northern Texas Utilities Co.	262,500
Municipal Gas Co.	88,900
Lone Star Gas Co.	1,890,000
Houston Pipe Line Co.	652,500
County Gas Co.	325,000
City Gas Co.	58,148

Texas Public Service Co., serving Austin and other cities, reported income for the year of $1,288,910, and expenses of $1,311,081. It reported no dividend paid.

In separate tables, reporting the total withdrawals of natural gas from the fields of Texas, totals showed the production of 218,135,360,000 feet. Carson, Hutchinson and Wheeler Counties led all the rest. About 50 counties were included in those producing gas. Average daily withdrawals for the State exceeded 25,000,000 feet. This was for accountable gas taken in by the companies selling it for domestic and industrial uses. It did not include the vast quantity of gas used in the production of oil. Total withdrawals for 1931 were reported at 218,621,232,000 feet.

Production by counties for some of the principal gas counties, for 1932, in feet, was:

	Feet
Carson	44,140,484,000
Hutchinson	29,858,701,000
Wheeler	23,151,544,000
Gray	15,709,822,000
Moore	11,091,761,000
Refugio	13,567,586,000
Duval	9,520,853,000
Eastland	6,284,528,000
Harrison	2,126,180,000
Live Oak	2,325,484,000
Nueces	4,615,702,000
Palo Pinto	4,056,573,000
Panola	8,576,674,000
Potter	5,006,053,000
Reagan	1,202,538,000
Rusk	1,201,746,000
San Patricio	8,399,426,000
Shackelford	1,705,910,000
Stephens	6,202,053,000
Webb	4,393,975,000
Winkler	1,561,454,000
Zapata	890,303,000
Victoria	877,359,000
Coleman	976,821,900
Bee	918,610,000

Rates in Philadelphia Are Reduced by Company

PHILADELPHIA, Pa., July 17.—At a meeting of the Philadelphia Gas Commission it was announced by Samuel M. Vauclain, chairman, that the commission had accepted and approved the recommendation of the Philadelphia Gas Works Co. for a reduction in the price of gas used for heating, effective September 1. Gas consumed for cooking, water heating and other incidental purposes by customers heating their homes with gas will be included in this schedule and it is estimated that the reduction will mean a saving of $106,000 a year to this class of customers.

The new rates will be 90 cents per 1,000 feet for the first 2,000 feet per month; 85 cents per 1,000 feet for the next 3,000 feet per month; 75 cents per 1,000 for the next 15,000 feet, and for all consumption over 20,000 feet per month, 50 cents.

The minimum annual bill under this schedule will be $100, as compared with the present annual minimum of $185. Under the present schedule, the charge for gas above a consumption of 20,000 feet per month is 65 cents per 1,000 feet.

TO REOPEN BORGER PLANT

BORGER, Tex., July 17.—Preparations for reopening the Stinnett plant of the Eastern Carbon Black Co. are under way. The Borger shipments last month averaged 50 per cent over June, 1932.

Government Reports on Gas Reserves at Oklahoma City

The U. S. Bureau of Mines has just issued Report of Investigations 3,217 entitled "Estimate of the Gas Reserves of the Oklahoma City Oil Field—Oklahoma County, Oklahoma," by H. B. Hill and E. L. Rawlins. This report was prepared at the special request of the State of Oklahoma and the Oklahoma City Chamber of Commerce.

The report is a very comprehensive study of the gas reserves in the upper as well as the oil producing zones of the field. It is well illustrated with maps and geological cross sections and each producing gas sand is treated separately and its area, thickness and volume of gas given. These individual sand studies are combined to give total estimated reserves and full data on this field.

Copies of this report can be secured free of charge from the U. S. Bureau of Mines, Washington, D. C., or the Petroleum Experiment Station, U. S. Bureau of Mines, Bartlesville, Okla.

OKLAHOMA PANHANDLE CUT

Cimarron Utilities Co., with headquarters at Guymon, Okla., has been ordered by the State Corporation Commission to lower natural gas rates to towns in the Panhandle. Guymon will get the greatest reduction, from 54 cents to 50 cents. Smaller reductions are effective as of July billing at Hooker, Tyrone, Beaver and Texhoma.

War Department Action for Reduction in Rates

AUSTIN, Tex., July 17.—The Federal Government's demand for a 10 per cent reduction in public utility rates for its various institutions throughout the country already has sent two Texas natural gas rate cases to the gas utilities division of the State Railroad Commission.

Application of the Government for a reduction in the gas rate of Fort Brown, Brownsville, has been met by the Rio Grande Valley Gas Co., the State Railroad Commission announced.

A similar application from the U. S. War Department for a 10 per cent reduction in the gas rate of Fort Bliss, El Paso, is pending.

A report from Washington said Assistant Secretary of War Woodring has served "a virtual ultimatum to public utility services throughout the country to reduce rates 10 per cent. Acting in the interest of governmental economy, but with a view to bringing relief to household budgets throughout the nation, Assistant Secretary Woodring has dispatched orders to all corps area commanders to serve notice upon the public utility services that War Department contracts for such services will not be renewed for the fiscal year 1934 unless a 10 per cent reduction in rates is granted."

New Gas Strike in Quebec to Cause More Drilling

CHATHAM, Ontario, July 15.—In the province of Quebec, Lanoraie Oil & Gas Syndicate of Ottawa is reported to have brought in a new gasser 7 miles from Joliette, and about 40 miles northeast of Montreal. The acreage is largely in Berthier and L'Assomption Counties, on the north shore of the St. Lawrence. The Lanoraie producer is stated to be the fifth well drilled in this area, which is 7 miles in length and between 2 and 3 miles wide. An open flow of 5,000,000 feet a day from the five wells is claimed. The wells are shallow, and apparently get their production in the drift immediately above the rock. Previous tests include Lanoraie Syndicate's No. 1 at Lanoraie, Berthier County, which got production at 210 feet; Trinidad Mines & Oil's No. 1, also at Lanoraie, finished at 185 feet; St. Paul Oil & Gas Corp.'s No. 1, St. Viateur, Berthier County, a producer at 130 feet, and St. Paul's No. 2, Cabane Ronde, L'Assomption County, finished at 300 feet. It is understood plans are on foot to pipe the gas 7 miles to Joliette, a town of approximately 9,000 population. Additional wells will probably be drilled. The pipe line may be undertaken this summer.

So far, this shallow gas is the most important production developed as the result of extensive drilling in recent years on both the north and south shores of the St. Lawrence. On the south shore a number of deep tests were drilled, one being carried to 6,150 feet without developing commercial production. Earlier drilling, some 26 years ago, led to the piping of gas from St. Barnabe and other localities to Three Rivers and St. Hyacinthe; but the supply failed and the field was abandoned. Numerous farm and residences in the St. Lawrence Valley utilize natural gas from shallow wells, some of which have been producing steadily for 30 years, but efforts to develop deeper production have so far been unsuccessful.

FIELD PROBLEMS FROM READERS

Edited by Thomas F. Smiley

This department is conducted in order that men connected with the drilling, producing or transporting branches of the petroleum industry may obtain aid in solving problems that confront them in their work. Readers are invited to send questions freely. These questions will be placed in the hands of persons capable of answering them authoritatively, and the answers, based on the best available information, will be published.

Each question should give as much detail as possible, especially if it involves depth of sands, types of sands and operations on adjoining or nearby properties. The source of questions will be considered confidential, and only the initials of the sender will be published. Questions involving patented processes, intricate formulas or estimates of cost cannot be answered. If an immediate answer is important, one will be given by mail when the writer requests it.

In this connection, The Oil and Gas Journal will be glad to publish articles from field men who have devised new methods or improved old ones.

Well-Capping Device Designed to Stop the Flow Automatically

The writer and another man are interested in a well-capping device consisting of a cast-iron box made in the form of an inverted truncated pyramid. The upper end is about 12 inches square and it tapers to a size suitable for connection to standard well casing. Inside the box there is a hinged door that we believe will be closed automatically by the upward pressure exerted by the flow of oil and gas from a well. What will be the amount of pressure exerted at the top of the casing by a column of oil that rises to 100 feet above the top of the well? What would be the pressure inside of the trap door if it were closed against such a flow of oil and gas? What do you think of the general idea as applied to wells that might come in out of control?—D. C. B.

There are things about this idea that are not practicable. In the first place, the top end of a casing on a drilling well, where we assume it is intended to be used, is not left free. There are usually other connections made to it so this piece of apparatus would be difficult to attach.

There are numerous blowout preventers now on the market that work upon a different principle and are based upon actual oil field conditions. Some of them consist of a double set of rams that close in around the drill pipe in such a way as to close the opening at the well mouth even though there is a string of pipe in the hole.

You have assumed that when the well is out of control the pipe is entirely cleared of all tools or wire line. Such is not the case in many instances for the well may catch fire or come in out of control with the casing filled with the drill pipe. Under such a condition your equipment could not operate.

When actually drilling the up current of mud will flow out through the upper end of the casing and this upward flow would tend to close this trap door and this would be a drawback. If it is fastened open, then it might be hard to close it when trouble did occur.

As to the mechanical problem a 1-inch casting would have ample strength for the condition you have outlined, but probably not enough for actual well conditions.

A column of water 100 feet high would develop a pressure equal to 100 times the weight of a column 1 inch square and 1 foot high, or .434 pound per square inch. To balance this 100 feet of water would require a pressure of .434 × 100 or 43.4 pounds per square inch. This equals 695 ounces approximately.

As the bearing strip is 1 inch wide around the door there is a total of 48 square inches in bearing. Dividing the total pressure per square inch by 48 square inches the pressure exerted on the bearing is only about 14.5 ounces. So the cast door would be amply strong enough for such pressure.

However, the shut-in pressure of oil and gas wells will sometimes amount to several thousands of pounds. We know of many instances where such pressures have exceeded 2,000 pounds per square inch. Under such circumstances the pressure on the 48 square inches of bearing would be about 42 pounds per square inch, but it is probable that the casting would resist it.

However, when a well is blowing out of control, it is usually carries an appreciable amount of sand with the oil or gas. As it would be very difficult to make a tight joint between the door and the bearing a slight opening would permit the escape of this sand which has a rapid abrasive action.

While the faces of the trap door and the bearing might be machined or even polished to insure contact, when the door swings upward moved by the pressure exerted by the upflowing stream of oil there will be eddy currents under the lip of the housing and they would make it difficult to shut this door tight immediately. In a matter of minutes a stream of this sand-laden oil can cut through the hardest kind of steel and it probably would destroy your cap too quickly to make it effective.

Master gates for large wells are built to withstand pressures of 5,000 pounds per square inch. At one well in the Oklahoma City Field producing at the rate of 70,000 bbls. per day with 150,000,000 feet of gas through 7-inch casing and a pressure of 150 pounds at the master gate it has been estimated that the velocity of over 450 miles per hour was attained by the oil at the top of the casing. This oil carried by actual check about 20 per cent by volume of fine sand. Similar fittings have been completely destroyed in less than four hours, so you will get some idea of the powerful cutting action of this moving sand.

There are two types of connections used about a well, one set while the well is drilling, and the other, usually called a christmas tree, after the well is completed and ready to put on production.

If your device is not suitable for use on a drilling well because of the reasons set forth, let us consider it for installation after the well is drilled but before it is brought on production.

If the hole is to be shot the casing will be run. It may be that it is lifted off its seat to get it out of the way of the shot. In that event there could be no connections on top of the casing because it would have to be clear to permit handling. This would prevent the use of this device because it could not be put into place until after the well was shot and then if it was out of control it would be too late to use it.

If the casing is not lifted from its seat and the well is shot, the top of the casing would be fitted with regular valves, called master gates, that would be opened to permit the shot to be run. After the shot there is usually a lot of work to be done in bailing out the debris in the well caused by the shot. During that period there is wire line in the hole so the device could not be used effectively.

Engineering opinion is to the effect that there is only one need for any kind of semiautomatic device around a drilling well. That is to prevent a well from flowing out of control and with proper drilling and completion methods followed there is little danger of this out-of-control condition ever occurring.

If the wells are of medium capacity there is no need to depart from the usual procedure in connecting the top of the well to the separator.

If your device were placed at the top of the casing without other control valves and the well did come in out of control and closed the trap door, how would it be operated later to complete the connections of the well head? Had you thought of that?

If your answer is that other valves and connections would be fitted to the casing to open after this device has worked you immediately eliminate any possible use for the automatic trap. If you do not have the valves and the well closes the trap door and holds it closed from the inside, the operator would be in the predicament of the man who caught the bear by the tail. Apparently the well could not be capped and put on production without destroying the trap.

The control of wells during drilling has received the best thought of oil men for the past 70 years and the present practice is the result of the old law of elimination and the cut and try system, so it is hardly likely that a device such as you propose would win ready acceptance.

When and Where Casing Was Used First in Oil Wells

I have been trying to find out just when the practice of using casing in oil wells began, but without success. Can you tell me? Was the device patented? In what oil field was it used first? Were not fishing jobs, if they had them, much more serious prior to the use of casing? Are you able to tell me when the steam engine first was used in oil-well drilling?—D. O. G.

Answering your last question first, the steam engine was used for the first time in oil well drilling in September, 1860, in the Tidioute, Pa., Field, about a year after completion of the Drake well.

With reference to your other questions, the information obtained for you is not as precise as might be desired. George Koch, of East Sandy, Pa., wrote for the Petroleum Age in 1888 a history of oil drilling operations and the following is quoted from that history as providing the best information at hand in reply to your inquiry:

"The first well drilled through casing was located on Benninghoff Run in 1868. This was the greatest invention ever conceived and applied to the art of drilling. Previous to that all wells were drilled wet. No casing was used. Three to six months were required to drill a well 600 feet deep. Contractors at that time received from $3 to $4 a foot for drilling, and the well owner paid all the expenses except the labor. It would appear that at that time the contractor received a very remunerative price, but many failed.

"The trouble was fishing and a lot of it was done. Iron jars and poor welding, especially the welding of the jars and the steel in the bits and reamers was the trouble. Fishing tools were very primitive. The valve sockets and the grabs were all the tools known for that purpose. When a bit, reamer or part of the tools was lost in the well the floating sediment would settle and fasten it. The driller knew but little about fishing at that time, and the fishing tools were poorly adapted to the business. In 1868 the first well was drilled through casing, and the time of drilling was made two-thirds shorter.

"Tool fishing lost many of its terrors. Tools lost in a cased well did not become fastened by the drillings settling. When the oil sand is reached it can most always be told if it will be a paying well. In a wet hole but little can be told until it is pumped for a time. All the drillers dislike to work in wet holes."

If any readers of this department are able to tell whose well on Benninghoff Run it was that used the first casing and the precise date of its completion, it is hoped they will send in the information. Casing as a device in drilling oil wells was not patented.

Why Was It Called That?

TOBACCO

Many things could be gone without in developing an oil field, but tobacco is not one of them. The word "tobacco" comes from the Indian "tabaco," the tube or pipe in which certain South American natives smoked the plant. The highest price ever paid for tobacco is believed to have been given by a South Sea Islander in 1903. According to the story, a tourist who had missed his boat whiled away his time watching pearl divers. One of them, seeing the tourist roll a cigaret, wanted to buy the sack of tobacco, the last one on the island. When he offered the pearls in his next five shells, the tourist agreed. The first four shells produced nothing. The fifth disclosed a pearl of exceptional excellence. Declining all local offers, the traveler bought a pistol and left on the next steamer. He later sold the pearl, for which he had traded a 5-cent sack of tobacco, for $16,400.

TECHNICAL QUESTIONS ANSWERED

By Charles K. Francis, Ph. D., Technical Editor

This department of The Oil and Gas Journal is devoted to the manufacturing branches of the oil industry.

Those connected with the refining of crude petroleum, the manufacture of natural gasoline and closely allied industries are invited to submit their problems to Dr. C. K. Francis, technical editor. The department was created for the purpose of aiding managers, superintendents, engineers, chemists and all those engaged in the various phases of plant operation; also those connected with marketing and utilization of petroleum products.

Questions should be submitted in as much detail as possible.

Inquiries must be signed but only the given initials will be printed. The source of the questions is considered to be confidential.

Questions requiring a dicussion of patents, the use of intricate formulas, extended computations, or cost estimates cannot be considered.

When the matter is of general interest the reply will be published within a reasonable time.

C.T.S. Method for Determining Kind of Hydrocarbons

We have a reference to Air Service Information Circular 465, 1924, for percentage of hydrocarbons in representative gasolines by the G. T. S. method. Can you give us an outline of the method together with the results found for gasoline from Pennsylvania, Oklahoma and California, as we cannot locate this publication? —E. S. P.

The circular, "Analysis of Some U. S. Gasolines," by A. C. Zimmerman, contains the following description of the critical temperature of solution method for determining type of hydrocarbons in gasoline.

The apparatus consists of a glass test tube, hand agitator, and thermometer. Five c.c. of pure anilin is placed in this tube and 0.5 c.c. of the gasoline to be tested is added from a 10 c.c. burrette. The tube is then heated by partial immersion in hot water and the mixture stirred until complete solubility occurs. The bath is then allowed to cool and the temperature at which distinct cloudiness develops in the tube is noted. With the same procedure successive 0.5 c.c. portions of the fuel are added until these additions do not cause a rise in the temperature at which cloudiness is produced. This is the critical temperature of solution (C.T.S.) of the fuel with anilin.

The values used in the calculations as the C.T.S. of cyclic, hydrocyclic are approximately as follows:

		°C.
Paraffin hydrocarbons		70
Hydrocyclic hydrocarbons	Cyclohexane	31
	Methylcyclohexane	41

In as much as the experiments have proven that the C.T.S. decreases progressively, the above admitted values yield percentages of cyclohexane to the extent of 2.56 per cent per degree decrease in temperature calculated as follows:

$$100/70—31=2.56\%$$

Similarly for methylcyclohexane:

$$100/70—41=3.4\%$$

It has been found that, roughly speaking, each degree difference in C.T.S. before and after nitration is equivalent to approximately 1.2 per cent aromatic hydrocarbons.

As the unsaturation of the fuels was less than 5 per cent, the samples were not treated to rid them of these compounds, and the distillation formed the first step in the process. Five hundred grams of each gasoline was double distilled into four fractions: Fraction No. 1 consisted in that boiling below 69° C.; No. 2 from 69° to 90° C.; No. 3, 90° to 120° C.; No. 4 above 120° C. This was done to facilitate the determinations for compounds sought which have boiling points within these limits. The C.T.S. of each fraction was taken before and after nitration with a mixture of 10 parts by weight of concentrated sulphuric acid and 3 parts of fuming nitric acid. This treatment was performed, avoiding all great heating until the nitration was complete. The remaining gasoline was then washed with successive portions of concentrated sulphuric acid, water, 30 per cent sodium hydroxide solution and water, each to a sufficient degree to completely remove the dissolved nitro compounds and to purify to a great degree and to allow for accurate C.T.S. determination. After the final washing the fuel is dried by filtering over fused calcium chloride. The rise in the C.T.S. multiplied by 1.2 gives the approximate percentage of aromatics in each fraction. The C.T.S. of the fraction after nitration is subtracted from 70 degrees (the admitted value for pure paraffin). This difference multiplied by 2.56 for cyclohexane or 3.4 for methylcyclohexane gives the percentage of these naphthenes in the fraction. The remaining fuel other than aromatics and naphthenes are considered as homologous paraffin hydrocarbons.

The results of the examination of the gasolines from the crude oils mentioned are shown in the table.

AROMATICS AND NAPHTHENES IN GASOLINE

Source of gasoline (crude)	Fraction below °C.	Crit. temp. sol. °C. nitration Before	After	Per cent Aromatic	Per cent Naphthenes
Pa.	69	62	63	0 2	2 2
	69-90	61 5	63	0 2	2 4
	90-120	58.5	62.5	1.1	5.6
	Above 120	60.5	67 5	3 9	4.0
Total				5.4	15 2
Okla.	Below 69	60 6	63 9	0 8	3 0
	60-90	57 8	60 6	1.1	8.0
	90-120	55 6	59.4	1.4	11.5
	Above 120	58.2	65.0	1.2	2 5
Total				4 5	25.0
Calif., McCook	69-90	52 5	55 0	0.7	3.5
	90-120	49 2	55 0	3.4	25.0
	Above 120	50.6	59.7	3.0	9 5
Total				7.1	43.0

For the Morrell and Egloff method, see Ind. Eng. Chem., 18,354, 1926, and The Oil and Gas Journal, January 27, 1927, page 156. A description of the method from the first reference, was given on this page in the issue of June 9, 1932, page 107.

Determining Water With Dean Trap in Distillation Method

Can you tell me how long the distillation method, now used for determining the percentage of water in emulsified oils has been in use and who designed the apparatus?—G. W. I.

The method commonly used in petroleum laboratories for determining water by distillation is A.S.T.M. Standard Method D-95-30. This method was issued in tentative form by the American Society for Testing Materials in 1921. The essential part of the apparatus is a glass trap combined in a vapor outlet, from a still, and connected to an upright condenser. The trap is graduated so that observations may be made ranging from 0.1 ml. to 10 ml.

The trap was designed by Dr. E. W. Dean, as described in his article in Industrial and Engineering Chemistry, Vol. 12, 486, 1920.

Increasing Efficiency of Motor Oils With Colloidal Graphite

Many efforts are being made to increase the efficiency of motor oils either through better refining processes or the addition of some material to the oil. It is claimed that the presence of colloidal carbon to the motor oil in the proportion of 0.02 per cent will give this increased efficiency. Is it your opinion that this would be true?—L. G. L.

Amorphous graphite of a soft character is produced artificially by the Acheson process in an electrical furnace. This is deflocculated by extended kneading with tannin in the presence of water to form the colloidal solution of graphite in water; the product being called aquadag. The aquadag is further treated by mixing and kneading with lubricating oil until the water is replaced by oil; this product, known as oildag, contains about 15 per cent graphite and is usually diluted to 0.1 per cent for use. Doctor Acheson uses the term deflocculation to mean the breaking down of the large compound groups to those of colloidal dimensions.

It is recognized that the lubricating quality of colloidal graphite is the result of the adsorption of graphite by the metal. It fills the surface depressions to make a smoother bearing, resulting in reduced friction and consequently requires less lubricating oil. Another advantage is that the deposited graphite continues to serve as a lubricant at high temperatures. These properties make the colloidal graphite especially suitable for use in the internal combustion engine. It acts to stabilize the oil when used under heavy loads, will maintain lubrication for a long period after all oil has been removed, and will form a protective film against wear.

A reliable index to yield of lubrication is the heat of adsorption, the greater lubricating value being shown by the higher heat of adsorption. Higher heats of adsorption are obtained when the lubricating oils contain colloidal graphite than the straight lubricating oils, and less oil is required for efficient lubrication because the graphic product will cause better spreading of the oil, where it will remain on the surface keeping it wetted.

Experimental evidence of the union of the graphite and metal may be obtained by immersing a clean piece of metal in colloidal graphite, which when removed will be found to have adsorbed a film of graphite which cannot be removed, except by mechanical means.

These facts have been demonstrated by numerous investigators during the past 25 years, so the merit of small quantities of colloidal graphite in lubricating oil is well established. Just how efficient 0.02 per cent graphite would be, would depend largely on the conditions. It would give some increased efficiency.

Essential Properties of Liquefied Hydrocarbons for Gas Units

I will appreciate it if you will give me some information regarding liquefied petroleum gases. What is the difference between propane and butane gas? How are these gases collected or manufactured? Are there any similar gases that are equally good as cooking fuel?—A. W. G.

The liquefied hydrocarbons, propane and butane, are derived from natural gas and the gas produced from petroleum in refineries. These compounds are extracted from the gas by a combination of compression, cooling and fractional distillation. The product is concentrated under high pressure to the liquid form and then stored in special tanks and cylinders.

Propane is the lighter of the two, having a specific gravity of 1.562 as compared with 2.046 for butane. The boiling points are important: Propane —44° F. and butane 30.9° F. Propane has a heating value of 2,503 B.t.u. per cubic foot and butane 3,251 B.t.u.

The low boiling point of propane makes it suitable for use throughout the United States, except under the extreme temperatures that are occasionally experienced in a few places and even under the exceptional conditions proper insulation may be provided, at low cost, to compensate for any temperature that would prevent vaporization of the gas upon release of pressure. The propane for domestic units is supplied in the liquid conditions in cylinders under a pressure of 150 pounds. The cylinders are placed outside of the building and connected with a pipe system for delivery to the appliances; the pressure being reduced at the cylinder outlet so as to deliver the gas at the burner ports under a pressure of 4 to 6 ounces. The propane used in the bottled gas industry is exceptionally pure, containing about 98 per cent propane and no objectionable impurities.

Butane is used only to a limited extent as a source of domestic fuel because its boiling point, only a little below the freezing point of water, is too high for the necessary self-vaporization under ordinary winter temperatures. The largest market for butane is for use in the manufacture of gas where the local conditions are not favorable for the distribution of manufactured gas, as made from coal, or natural gas. In this kind of plant, known as butane-air gas plant, the butane is mixed with air under closely controlled conditions in a centrally located plant, from which it is distributed in gas mains. Propane, undiluted, is sometimes distributed in a similar manner.

Liquefied gas is an ideal fuel under many conditions and there are no especially dangerous features involved in its use. All fuel gases will form mixtures with air that may be exploded under suitable conditions. The quantity of air necessary to form an explosive mixture with propane is large, between 94 and 98 per cent. This proportion is practically the same as for manufactured gas and natural gas.

There are no known gases having similar properties and equally as satisfactory as propane.

PERSONAL PARAGRAPHS

Frank A. Edson, former geologist of Norman and Oklahoma City, Okla., is now residing at Duluth, Minn.

* * *

W. H. Stueve, Oklahoma Gas & Electric Company, Oklahoma City, Okla., was a visitor to Tulsa last week.

* * *

J. R. Phillips, president of Skiatex Petroleum Corporation, of Borger, Tex., was a visitor in Tulsa and Skiatook last week.

* * *

I. B. Williams, of the Oil Well Flow Meter Corporation, Tulsa, is spending considerable time in the East Texas and Oklahoma City Pools.

* * *

R. Grinnell, president, Fluid Packed Pump Company, Oklahoma City, Okla., has been in a local hospital for some time with an infected throat.

* * *

F. J. Kelleher, of Tulsa, secretary-treasurer of the Stanolind Oil & Gas Company, has been spending some time at the Casper, Wyo., offices of the company.

* * *

R. S. Hyer, of Tulsa, engineer, representing the Sperry-Sun Surveying Company of Philadelphia, Pa., has been spending some time in Denver, Colo., and Casper, Wyo.

* * *

Dana D. Barnum, president of the Boston Consolidated Gas Company, Boston, Mass., has been elected to the board of directors of the American Standards Association.

* * *

Robert S. Ellison, president of Stanolind Crude Oil Purchasing Company and Stanolind Pipe Line Company, has returned to Tulsa after a business and personal trip to Casper, Wyo., and Denver and Colorado Springs, Colo.

* * *

O. M. (Ted) Evans, general assistant to the vice president in charge of production of Skelly Oil Company, with his family, has gone to Jacksonville, W. Va., for a three weeks' vacation.

* * *

Ed Dennis, who recently returned to Petrolia, Ontario, from the Peruvian fields, has taken a position with the McColl-Frontenac Oil Company with headquarters at Chatham, Ontario.

* * *

C. E. Wright and wife announce the birth of a daughter June 25. Mr. Wright is production engineer for the Indian Territory Illuminating Oil Company in the Oklahoma City Field, Oklahoma.

* * *

Dr. Richard E. Koch, head of the paleontological department of the Royal Dutch-Shell group at The Hague, Holland, has recently returned after a three months' visit to various fields in the United States.

* * *

Ted Sutter, general manager, Baker Oil Tools, Inc., Los Angeles, Calif., is visiting the trade in Tulsa, after which he will go to New York, stopping off in Chicago to visit the exhibit of Baker Oil Tools at the World's Fair.

* * *

James P. Kem, of Kansas City, Mo., vice president and general counsel of the White Eagle Corporation, was in Cheyenne, Wyo., representing his company at the gasoline price hearing before the attorney general of Wyoming.

* * *

The Sinclair Prairie Oil Company has announced transfers of three of its district superintendents. R. M. Bass has been promoted from district foreman to district superintendent, moving from Damon, Okla., to Arp, Tex. Byron Meredith, district superintendent is moving from Arp to Eastland, Tex., and O. E. Randolph has been transferred from Eastland to western Kansas and will have headquarters in the Voshell Pool.

Frank A. Herald, consulting geologist, Fort Worth, Tex., was a visitor to Tulsa last week.

* * *

Henry A. Barkhausen, president of the Barkhausen Oil Corporation, of Green Bay, Wis., sailed from New York for Europe last week.

Men of the Industry

FRED C. SEALEY

Fred C. Sealey, recently made manager of the South Texas division of the production department of the Texas Company, had been assistant manager since early in 1929 and in his new capacity succeeds William V. Bowles, who resigned April 1 to engage in the drilling contracting business.

With the exception of time spent in the army during the World War, Mr. Sealey has been in the service of the Texas Company for 16 years, gaining experience in many areas including the Rocky Mountains, Oklahoma, Kansas, Arkansas, North Texas, South Texas and South America. His first connection with the company was as assistant geologist of the Rocky Mountain division in Wyoming where he went to work in June, 1917.

The following year when war was declared Mr. Sealey enlisted in the army, in which he served as a commissioned officer, but after his discharge in January, 1919, he went back with the Texas Company and was sent to South America where he did geological work in Peru and Brazil. Returning to the United States he was assigned to the Oklahoma and Kansas division with offices in Tulsa. Later he was sent to El Dorado, Ark.

In February, 1921, Mr. Sealey was transferred to the Gulf Coast as resident geologist at West Columbia and worked there during the boom, after which, in 1922, he was promoted to division geologist for South Texas and was moved to Houston. In January, 1926, he was made division geologist for North Texas with headquarters in Wichita Falls, but was returned to Houston early in 1929 as assistant manager of the South Texas division.

In his present position as manager, Mr. Sealey has charge over all leasing, geological, drilling and production operations of the company in South Texas from the Louisiana line to the Mexican border. He is a graduate of the Colorado School of Mines with a degree in mining engineering. He is a native of Denver, Colo., where he was born September 8, 1895.

Sir David Milne Watson has been re-elected president of the International Conference of Benzole Producers.

* * *

R. B. Whiteside, geologist, Shell Petroleum Corporation, Tulsa, has just returned from a two weeks' vacation spent in Chicago.

* * *

Paul Mehaffey, president of the Happy Belting Company, Tulsa, who has been seriously ill in a Tulsa hospital, is somewhat better.

* * *

C. C. Rae, petroleum engineer, Skelly Oil Company, Tulsa, motored with his family to Colorado for a vacation and will return there again later.

* * *

Jacques Lapergue, manager of the Standard Oil Company of New Jersey branch at Rouen, France, has arrived at New York, accompanied by Mrs. Lapergue.

* * *

S. F. Shaw has been in East Texas investigating conditions in connection with installations of intermittent gas-lift operations on some wells that have ceased to flow.

* * *

Roy H. Laird, mayor of Kilgore, Tex., and oil land owner in the East Texas Field, was married to Miss Annie B. Nolan of Dallas, in New Orleans, La., on July 12.

* * *

Lloyd R. Pickrell, who recently resigned as state oil umpire in Kansas to re-engage in the oil business, has resumed connection with Tom C. Johnson, independent producer.

* * *

T. F. Hudgins, vice president and general manager of Cooper-Bessemer Corporation, Mount Vernon, Ohio, is spending some time at the Tulsa office, after which he will go to East Texas.

* * *

L. B. Holland, Oklahoma City, Okla., division production superintendent, Phillips Petroleum Company, and Mrs. Holland, are spending two weeks in Colorado and expect to return this week.

* * *

A. M. Coenen was elected a member of the directorate of the Royal Dutch Petroleum Company at the annual meeting of the company. Mr. Coenen has been elected in place of the late Mr. Yzerman.

* * *

En route to the Washington convention of the International Geological Congress, Prof. Paul Leon Lutaud of the University of Paris; Prof. Paul Fallot, of the University of Lyon; Prof. Pierre Fouche, of the Sorbonne, and M. E. Raguin, French mining engineer, have arrived at New York.

* * *

W. T. Waggoner, oil operator and capitalist of Fort Worth, Tex., and party, have gone to Colorado Springs, Colo., for a visit. Mr. Waggoner was stricken with a brain hemorrhage on May 25, but has become gradually stronger, feeling strong enough to make this trip.

* * *

T. S. Hogan, of Midland, Tex., has been appointed assistant solicitor in the office of Solicitor Nathan R. Margold, of the Interior Department. Mr. Hogan is a well-known operator of West Texas, has practiced law, been a rancher and farmer, secretary of the State of Montana, and a former state senator.

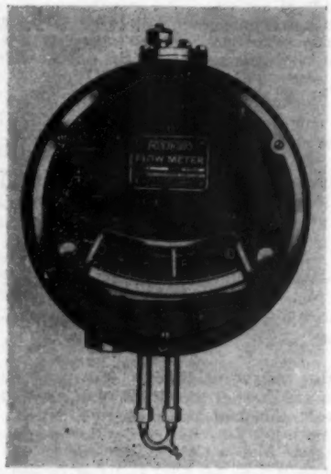
* * *

D. J. Moran, chairman of the American Petroleum Institute's Division of Refining, has announced the appointment of C. E. Townsend, of the Sun Oil Company, Philadelphia, Pa., as chairman of the Institute's Committee on Fire Prevention in Refineries, to succeed C. H. Haupt who has resigned from the committee because of his retirement from service in the Standard Oil Development Company. C. H. Bunn, Standard Oil Development Company, Elizabeth, N. J., has been appointed a member of the committee.

NEW AND IMPROVED EQUIPMENT

Positive Check Provided by Indicating Flow Meter

Flow can be read accurately and inexpensively with the new Foxboro indicating differential gauge, developed by the Foxboro Co., Foxboro, Mass. This



instrument gives a positive check on operating conditions and helps the operator to obtain closer regulation. It shows exactly what happens when flow is being regulated by hand and eliminates the uncertain and unsatisfactory practice of counting turns on a valve. It is mounted in a neat, compact case, with wide easily read scale. The standard scale reads in per cent of total flow. Beneath the graduated scale is a white space on which reference notations of the actual flow may be marked. These notations are used by the operator when regulating the flow. If the customer so desires, the instrument may be equipped with a scale that gives direct readings of flow.

Ease of installation, accuracy, compactness and low initial and upkeep cost make the new Foxboro indicating flow meter outstanding.

Kibele Develops Complete Line of Pump Piston Rods

The Kibele Manufacturing Co., San Antonio, Tex., is manufacturing a complete line of piston rods for slush pumps and boiler feed pumps. These are called Kibele universal tapered rods for the reason that all Kibele pistons will fit them. Operators having pumps of the same size but of different makes, can change Kibele pistons from one to the other where such pumps are equipped with Kibele tapered rods.

These rods are being made for all makes and sizes of pumps and are furnished in two grades of steel, heat-treated alloy and nonheat-treated carbon. Pistons are pressed on these rods in the Kibele shops and are ready for installation. They are now selling as a complete piston and rod assembly.

The Kibele Manufacturing Co. continues to bore its pistons for standard equipment rods in any make or size of pump.

The stockholders of the General American Tank Car Corp., Chicago, at their annual meeting voted to change the name of the company to the General American Transportation Corp. as more descriptive of its diversified activities.

Notes About Trade Literature

The Smith Separator Corp., Tulsa, is sending to those who ask for it an illustrated folder enumerating the advantages offered by the Smith oil and gas separator and especially discussing its value in the Conroe Field.

—

B. P. Sibole, vice president of the Stanolind Pipe Line Co., contributes an interesting article in the July issue of The Water Tower, published by the Chicago Bridge & Iron Works, Chicago, describing the construction of 346 miles of pipe in various loops on Stanolind's main trunk line from Healdton, Okla., to Whiting, Ind. Twenty-two new main line station tanks are equipped with Wiggins floating roofs.

—

The Superior Engine Co., Springfield, Ohio, has issued bulletin 126 showing the new Superior portable Diesel power unit. This is a complete self-contained Diesel power plant with radiator cooling in larger sizes than common.

—

The Lebanon Steel Foundry, Lebanon, Pa., has prepared for free distribution an eight-page illustrated bulletin describing its line of casting steels, which are presented in three groups: (1) Alloy steels for high stresses and wear resistance; (2) steels designed to meet the requirements of oil refineries, combining high strength and resistance to corrosion, and (3) stainless steels, of both the straight chromium and chromium-nickel analyses.

—

"Truck and Trailer Size and Weight Restrictions" is the title of a handbook compiled by F. M. Higgins, research department of the Four Wheel Drive Auto Co., Clintonville, Wis., intended for the use of truck and trailer operators.

—

A 12-page illustrated publication entitled "Condensing Bleeder Turbines" describing the application and construction of these turbines may be obtained from the nearest district office of the Westinghouse Electric & Manufacturing Co., or direct from the company's advertising department, East Pittsburgh, Pa.

—

The Thiokol Corp., of Yardville (Trenton), N. J., announces that through an arrangement with the Monsanto Chemical Works, Ltd., of London, England, "Thiokol" will be available for sale and distribution in Europe. "Thiokol" is an oil-proof, synthetic rubber which up to the present has been manufactured solely in the United States.

Insert Pump Designed to Eliminate Pulling Tubing

The new type 33 insert pump announced by the Oil Well Supply Co., Oil City, Pa., is designed to eliminate pulling tubing, to reduce lifting costs and to gain the highest possible volumetric efficiency. It is supplied in a full range of sizes, beginning with 1-inch. Outstanding features as summarized by the manufacturer follow:

Self-contained unit, run in and pulled out on the rods; eliminates pulling tubing.

Small barrel, maximum efficiency, reduces load, prolongs life of rods, excellent for continuous pumping, increases recovery of stripper wells.

Simplicity of construction, low initial cost, fewer parts, less upkeep.

Special packing arrangement, prevents sanding up of pump when suspended in tubing or worn barrel.

Furnished with either nickel-iron or special cold-drawn steel barrel.

Adaptable to a variety of well conditions: Suspended in tubing or worn barrel or seated on top of worn barrel; equipped with four or six-cup regular or unit type or repack type traveling valve; nickel-iron barrel design regularly equipped with oversize standing valve; special cold-drawn steel barrel design equipped with either standard or oversize standing valve.

YOUNGSTOWN PIPE HANDBOOK

The third edition of Catalog No. 16, now ready for distribution by the Youngstown Sheet & Tube Co., Youngstown, Ohio, is a handbook of 104 pages, with flexible cover, containing a mass of helpful engineering information, along with tables, trade customs, rules for the care of pipe, technical data on dimensions, weights, threads, etc. The booklet has been prepared as a special service to users of tubular goods, to whom it is sent on request.

Three New Six-Cylinder Trucks Made by Federal

Production of three new six-cylinder trucks by the Federal Motor Truck Co., Detroit, Mich., is announced by M. L. Pulcher, president. These new chasses, designated as 15A, 20A and 25A, rated at 1½ tons, 2 tons and 2½ tons, respectively, embody the late advancements in truck development.

The outstanding characteristic of these new trucks is their sturdy and substantial construction. An idea of the margin of safety built into them may be gained from the frames which have a maximum depth of 8½ inches. It is also evidenced by the chassis weights (standard short wheelbase), which are 3,500 pounds for the 1½-ton, 3,900 for the 2-ton and 4,500 for the 2½-ton.

Noteworthy advantages include long-wearing dry plate clutches, four-speed transmissions on 1½ and 2-ton models and five-speed transmission with silent fourth on the 2½ tonner; full floating rear axles; rubber bushed spring eyes that require no lubrication; roller bearing universal joints; four-wheel hydraulic brakes. In the design of these new models special attention has been given to the welfare and comfort of the driver.

Snetcher & Pittman Offer Useful Combination Valve

Snetcher & Pittman, Oklahoma City, Okla., announce the new Hallett combination globe and check valve, which they will manufacture and distribute.

The advantage of this valve is its ability to serve as either a globe or check valve. Among its features are the removable seat, large stuffing box in upper part of one-piece screw over bonnet, strong shank and guide, slightly open for check valve, open position for globe valve. The valve is made of bronze and is of sturdy construction.

Eb Isaacks Appointed to Sales Staff of Kerotest

The Kerotest Manufacturing Co., Pittsburgh, Pa., has appointed J. D. (Eb) Isaacks to its sales staff. For the last seven years "Eb" had been research en-

J. D. ISAACKS

gineer for the Oil Weekly and associated publications. His headquarters will be in Houston, Tex., and he will cover the active territories in connection with the sale of completely assembled and tested "Gray-Kerotest" christmas trees, etc., as well as the regular line of Kerotest valves and fittings.

GE Now Introducing Motor of Fractional Horsepower

A new single-phase, fractional horsepower motor, specially designed for driving small water pumps, has been developed by the General Electric Co. Outstanding among the features of the new motor, designated as Type RSA, are drip-proof end flanges to prevent dripping water from entering the motor, a large bearing-oil capacity which makes oiling of the motor unnecessary more than once a year, and a built-in terminal box for simplifying installation by eliminating all necessity for splicing and soldering connections. The performance characteristics of the motor are in accordance with N.E.M.A. standards for short annual service. The motor is available in one-sixth, one-quarter and one-third horsepower ratings, with interchangeable mounting dimensions.

In addition to water pump service, this motor is readily adaptable to such applications as oil and grease pumps in service stations, certain types of circulating pumps, small machine tools, and other devices requiring similar load characteristics.

LUFKIN OPENS DALLAS OFFICE

The Lufkin Foundry & Machine Co., Lufkin, Tex., has opened an office at 1504 Magnolia Building, Dallas, Tex., in charge of E. P. Trout. For the last six years Mr. Trout has been in charge of the Pacific Coast office and before that he served in the operating and engineering departments. Recently he has been in East Texas familiarizing himself with the operating peculiarities of that field.

CLASSIFIED ADVERTISING

Classified Rates

The rates for Classified Advertisements are 35 cents a line for the first insertion and 25 cents a line for each additional insertion. The following table will enable you to figure the cost of your advertisement:

	1 time	2 times	3 times	4 times
8 lines	$1.05	$1.80	$2.55	$3.30
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6 lines	2.10	3.60	5.10	6.60
7 lines	2.45	4.20	5.95	7.70
8 lines	2.80	4.80	6.80	8.80
9 lines	3.15	5.40	7.65	9.90
10 lines	3.50	6.00	8.50	11.00

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Six words usually constitute a line.

Compute white space at the above rates.

Mail your Classified Advertisement to THE OIL AND GAS JOURNAL Tulsa, Oklahoma.

For Sale—Equipment

25 K.W. and 40 K.W. Gas Engines, 220 volts, D.C. Two 100 K.W. Gas Engine Generator Sets, 220 volts, D.C. 7x6 Ingersoll-Rand ER-1 Air Compressor. Six-inch Oster Pipe Threading Machine. Also, large stock of lathes, pipe machines, milling machines, etc. Send for our list. Terms to suit.
CINCINNATI MACHINERY & SUPPLY CO.
26 West 2nd St. Cincinnati, Ohio.

14 MILES USED 4-INCH LINE PIPE
Made of plain end marine boiler tubes, 18-ft. lengths, welded. Will cut 40-ft. lengths beveled ready to weld. Excellent pipe, used only short while. All or part offered at very attractive price. Now located Pryor, Okla. Phone or wire—collect—for details.
THE BRIDGEPORT MACHINE CO.
Wichita, Kans.

USED EQUIPMENT is bringing better prices now than in years, as there is so little available to meet the rising demand. If you have used equipment in good condition, now is the time to let buyers know of it. A small advertisement in these columns will cost very little and is most certain to reach prospective buyers.

EQUIPMENT FOR SALE—15½", 12½" and 10" casing. 2" tubing and line pipe. Rods. Standard drilling rigs. 5-½" and 6⅝" high pressure gates. Write Aeques Oil Co., P.O. Box 638, Cushing, Okla. Phone 852.

55,000 OR 66,000-BBL. TANKS
Will move and re-erect on your grade one or more steel roof storage tanks, practically new, anywhere in United States at great saving. If you have crude oil, fuel oil, gas oil or gasoline we can build the storage.
SONKEN-GALAMBA CORPORATION
64 North Second St., Kansas City, Kans.

BARGAINS—Demonstrator Arc Welders, Guaranteed. Electric, Gasoline Engine, Belted—All with "Simplified" control. 30 Days' Trial, Terms. Hobart Bros., Used Equipment Division, Box 0G-73, Troy, Ohio.

6 — 500 Lb. 50" Differential.
WESTCOTT ORIFICE METERS,
Taylor case type, with piping and saddles. Practically new
Price $90.00 each.
P. O. Box 322, Tulsa.

Chemists

GINTER CHEMICAL LABORATORY
OIL - GAS - WATER
118 West Cameron
Tulsa

Business Opportunities

REAL GOLD Mine, high grade ore, approximately $20,000. Visible ore. Enormous profit possibilities. Need $9,000 to get into substantial production. Will deed ½ interest for said cash. Write or wire G. Ferguson, 445 S. 6th Ave., Tucson, Ariz.

GOLD STRIKE ASSAY $1,940 Ton. Large Vein 12,000 ft. altitude. Good mountain trail. Will sell. W. W. Russell, Alamosa, Colo.

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United States and Canada
Before disclosing your invention to anyone, send for blank form:
"Evidence of Conception."
Instructions "How to Establish Your Rights" and complete information FREE!
LANCASTER, ALLWINE & ROMMEL
418 Bowen Building,
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Oil Industry Printing

OIL FIELD LEGAL BLANKS
Leases, assignments, releases, township plat books, well records, etc. Request on your letterhead gets free catalog. Olds Press, 215 East Third St., Tulsa, Okla.

Royalties—Production

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Oklahoma — Kansas — Texas
G. D. TERRIEN
Philcade Building, Tulsa, Okla.

JAMES B. McANALLY

Hunt Building, Tulsa, Oklahoma.

An organization backed by twenty years' practical oil experience, supplying well selected royalties to dealers only, who are interested in building satisfied clienteles.

LONGEST PROFITS are in new oil fields. Perpetual royalty under undrilled major company lease blocks $4 per square mile. R. R. Fisk, Box 395-B, Wichita Falls, Tex.

PRODUCING OIL ROYALTIES
Bought and Sold.
Inquiries invited from Oil Companies, Bankers, Dealers.
DAVID R. MITCHELL & CO.,
Established 1916.
20 BROAD ST. NEW YORK.

BROKERS—If you want wholesale prices on well located oil leases and deeded royalties in Texas titles guaranteed, write A. C. Smith, P.O. Box 927, Houston, Texas.

ROYALTIES for dealers, producing, nonproducing Oklahoma, Kansas, Texas, Louisiana. Lowest prices and highest quality. James R. Haynes, Grantville, Kans.

CHOICE INCOME OIL ROYALTIES. Kansas and Oklahoma, for investors and dealers. J. L. HANER, 105 McKibban Bldg., Muskogee, Okla.

ROYALTIES in new North Cut Bank Oil Field, Montana, $62.50 acre base. Landowner, Box 1225, Great Falls, Mont.

Royalties—Production

BETTER CLASS
MONTHLY INCOME ROYALTIES
W. E. Cook, Court Arcade, Tulsa, Okla.

ROYALTIES FOR INVESTMENT
Andrew J. Barrett,
Suite 1903, The Philtower,
Tulsa, Okla.

HIGH GRADE producing oil and gas royalties offered to dealers. Billie Smallwood. P. O. Box 2261, Tulsa, Okla.

ROYALTY DEALERS

BE SAFE!—Get an unbiased report on royalties before buying—ask about our service.
ROYALTY ENGINEERS, INC.
Philcade Building, Tulsa, Okla.

PRODUCING OIL ROYALTIES
in Fractional deeds from $100 up.
John L. Dickson, Box 1113, Tulsa, Okla.

ROYALTY OWNERS
Present low oil prices are most favorable for royalty investments. Our twenty years' oil experience assures you of careful and intelligent selection.
Weekly oil report sent free on request.
G. A. SIMON
Exchange Bank Building, Tulsa, Okla.

SELECTING OIL ROYALTIES
for dealers a specialty.
Kansas-Oklahoma City-Seminole.
Chester Imes,
First National Bank Building,
Oklahoma City, Okla.

ROYALTIES
Kansas—Oklahoma—Texas
Always handle the best.
TULSA, OKLAHOMA
217 Cole Building
L. H. Witwer.

APPRAISALS & REPORTS
ON OIL, GAS & ROYALTY PROPERTIES BY—F. W. FREEBORN ENGINEERING CORP. 20 Years Mid-Continent Fields.
Alexander Bldg., Tulsa, Okla.
Phone 4-6038.

Leases—Production

NEW MEXICO Oil and Gas Leases and royalties. Send 50 cents in stamps for new State Oil Map of New Mexico. Roy G. Barton, Clovis, New Mexico.

EVERY MAN dealing in Texas leases and royalties should get quotations, maps and prices here. Dealers' territory protected. W. J. Dobbs, 915 Tower Pet. Bldg., Dallas, Tex.

FOR SALE—Oil and Gas Lease on SW/4 and W/2 SE/4 of Section 64 (La Chuse Ranch), McMullen County, Texas. For particulars write to The Farmers State Bank, Albert, Kansas.

FOR SALE—Oil and Gas production, also leases in proven and unproven territory, Anderson County, Kansas, shallow field. Great opportunity, don't write, but COME. W. L. Morris Loan Company, Garnett, Kansas.

LAND tested for Oil and Gas, references, drilling blocks. E. Fackler, 4020 Walnut, Kansas City, Mo.

WE ARE desirous of making connections with parties interested in oil and gas production, leases or drilling in Kentucky and West Virginia. We have real opportunities that will stand thorough investigation. We have leases close to production and are in position to furnish everything. Will drill on interest basis at reasonable figure. Address Lock Box 1682, Charleston, W. Va.

Help Wanted

WANTED experienced, well recommended driller. Capable of handling drilling in new field. One with Standard equipment or able to obtain same, for reasonable interest, preferred. Fine opportunity. J. D. Crain, Gillette, Wyo.

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The rate for Classified Display Advertising set in similar style to this Ad or in two-Column style is as follows for each insertion:

1 inch	1 time	$5.00
1 inch	13 times	4.50
1 inch	26 times	4.00
1 inch	52 times	3.50

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One point borders and ten point capitals are allowed, larger type not accepted.

Changes in copy must be in our office 10 days in advance of publication date.

Mail your advertisement to the Largest Classified Section in the Oil Industry.

THE OIL AND GAS JOURNAL Tulsa, Oklahoma.

Financing

INQUIRIES solicited — Corporations desiring capital through securities issue.
BROOKWORTH,
110 East 42d St., New York City.

JAMES E. MILLER CO., 207½ E. Third St., Tulsa, Okla., will co-operate with responsible parties seeking aid in financing projects of higher order.

FINANCING
Corporations requiring capital for promotion or expansion are invited to communicate with the undersigned.
WILLIAM R. THURSTON,
33 West 42nd Street New York, N. Y.

Established organization with record of successful accomplishment offers immediate action in financing of sound projects.
HENRY W. BENSON ASSOCIATES, INC.
92 Liberty Street, New York, N. Y.

Situations Wanted

MANUFACTURER'S REPRESENTATIVE. Established consulting engineer seeks to represent manufacturer of oil field equipment and specialties for East Texas territory. Address Box F-680, The Oil and Gas Journal, Tulsa, Okla.

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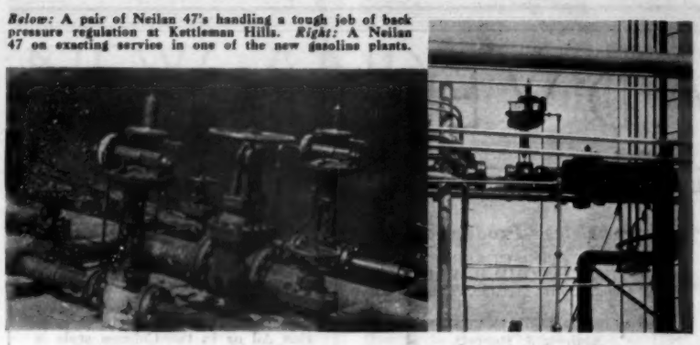

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